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PHASE II SITE INVESTIGATION  
REPORT ON FINDINGS  
CENTEX HOMES - STERLING  
West Hills, CA

July 26, 2005

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## 1.0 INTRODUCTION

The Centex Homes "Sterling Residential Neighborhood" site is located in West Hills, California, just west of the intersection of Roscoe Blvd. and Valley Circle Blvd. The Sterling Residential Neighborhood property is in an undeveloped area, which has no history of perchlorate usage, storage or releases. The western boundary of the proposed Sterling Homes site is located about 0.5 miles directly east of the approximate eastern boundary of the Rocketdyne facility test site known as the Santa Susana Field Laboratory (SSFL) in Ventura County, California, as shown in Figure 1.

The purpose of this preliminary investigation is to further investigate the surface and subsurface soil conditions for the presence of perchlorate, volatile organic compounds, metals and radionuclides.

This report is supplemental to the previous report "PHASE II SITE INVESTIGATION, REPORT ON FINDINGS, CENTEX HOMES - STERLING, West Hills, CA dated June 15, 2005, and July 11, 2005. The data presented in the June 15, 2005, and July 11, 2005 reports has been incorporated in to this report to facilitate evaluation of the site conditions.

## 2.0 SITE BACKGROUND

The Rocketdyne facility is located in the Santa Susana Region in Ventura County, California. Operational activities at the SSFL began in 1948 and have primarily included research, development, and testing of liquid-propellant rocket engines and associated components (pumps, valves, etc.). Liquid-propellant rocket engine testing activities have been conducted at six major rocket engine test areas. These areas were in operation simultaneously in the late 1950s and early 1960s. In addition to the primary facility operation for testing liquid-propelled rocket engines, the SSFL was used for nuclear energy research and development, and testing of water jet pumps and lasers.

Petroleum fuel hydrocarbons and chlorinated solvents have been used at the SSFL in large volumes. Petroleum hydrocarbons were used as fuel for many of the liquid-propellant rocket engine tests performed there. Chlorinated solvents, primarily TCE, were used following engine tests to clean elements of the rocket engines and for other equipment degreasing operations at the SSFL. Solid propellants, including perchlorate compounds, were used at the SSFL for research and testing operations. Perchlorate was used in relatively small quantities as an oxidizer for the production of turbine spinners and igniters; for research, development, and production of flares; and for small-scale solid-propellant rocket motors research, development, and testing.

The Rocketdyne facility was used, as indicated above by the Department of Energy for Nuclear testing in its Area IV facilities contained in the western most portions of the site, approximately 3.5 miles from the Sterling Site. The Agency for Toxic Substances and Disease Registry (ATSDR) has previously investigated the offsite areas east and

down gradient (Bell Canyon) from Area IV. No significant levels of radionuclides were found in these areas. Due to the topography between Area IV and the Sterling site, and lack of detection of nuclear related hazards on the eastern portions of the Rocketdyne Facility, limited nuclear related hazards were tested for as part of this investigation (See section 4.7).

Ammonium perchlorate, which is generally referred to as "perchlorate", is used as a strong oxidizing agent to combust fuels such as petroleum hydrocarbons or hydrazine in rockets. Perchlorates are currently used in the Space Shuttle Launch System, missiles, pyrotechnics, flares, and in automobile airbags. Perchlorates have also been shown to be present in Chilean Nitrate fertilizers at relatively high levels. The perchlorate in fertilizers is naturally occurring from the use of "caliche", a nitrate-bearing mineral found in Chile.

In the late 1990's, the presence of perchlorate was discovered in groundwater near various former and current rocket fuel manufacturing and testing sites. Based on the discovery of perchlorate in groundwater, improved analytical methodology was developed to identify low levels of perchlorate in drinking water.

The California Department of Toxic Substances Control (DTSC) has established an advisory level of 6 ppb, or "parts per billion" as the acceptable level of perchlorate in public drinking water sources. The groundwater at the Sterling property is not intended to be used for drinking water and the proposed development will utilize city water as the source of drinking water. Perchlorate has been identified in surface soils at various rocket and missile testing and processing facilities. Table 1 presents a summary of the typical perchlorate levels found in soils at these facilities as part of the remedial investigations. These values represent the concentration of perchlorate in soils identified in areas where perchlorate was extensively used and is therefore expected to be found at its highest levels. As noted in this table, the levels detected at these facilities range from 0.75 to 1.4 mg/kg ppm, or "parts per million".

Residual perchlorate concentrations from rocket testing at the Rocketdyne facility have been identified in the area of the former laboratory and test range in the eastern region, referred to as Area I, which is more than a mile from the Sterling site. The Rocketdyne facility has been the subject of various environmental investigations and remediation activities. The Perchlorate levels detected in this region of the Rocketdyne facility were generally below 6 g/kg (ppb), as indicated in the USEPA Resource Conservation and Recovery Act (RCRA) Facility Investigation Program Report, MWH, July 2004.

The Sterling site is located east of a dormant portion of the Rocketdyne facility, on the east side of a hill south of the Happy Valley Drainage Area, as shown in Figure 2. Previous studies of this area and local groundwater resources have not shown significant levels of perchlorate or trichloroethylene, another commonly used chemical at the Rocketdyne site. Runoff in Dayton Canyon has been sampled by DTSC and the State Water Resources Control Board (SWRCB). The routine monitoring of surface run-off from these areas tested at SWRCB outfalls HV-1 (NPDES Permit outfall 008)

and HV-2 during storm events have not detected significant levels of perchlorate as recent as March, 2005.

### 3.0 PERCHLORATE PHYSICAL AND CHEMICAL PROPERTIES

#### 3.1 Physical Properties

Perchlorate is an anionic salt composed of one molecule of chlorine and four molecules of oxygen and is expressed as  $\text{ClO}_4^-$ . The perchlorate salts include ammonium, potassium, sodium and calcium.

The high water solubility of perchlorate is one of the primary environmental concerns with this chemical. The solubility of the Perchlorate salts is comparable to table salt, approximately 35 grams per 100 grams of water. The high solubility characteristic of perchlorate dictates that it will readily dissolve even in small quantities of water. Perchlorate is so soluble that it is rarely found in surface soils since even with minimal rainfall, the materials dissolve and are washed away, or quickly infiltrate into the soil or shallow groundwater sources. Perchlorate has been shown at various sites to travel rapidly downward during groundwater infiltration and through groundwater aquifers.

Since groundwater is the primary exposure pathway of concern, no formal soil clean up standards have been established by the DTSC or the USEPA. Region IX of the USEPA has established a Preliminary Remediation Goal (PRG) of 7.8 mg/kg (ppm) in soils for the clean up of sites contaminated with perchlorate.

#### 3.2 Toxicity

Studies of perchlorate in drinking water sources have shown its primary toxic effect is on the thyroid gland in children and thyroid compromised adults. The perchlorate ion is able to displace iodine in the thyroid, which can cause reduced thyroid function and various thyroid related diseases. Studies by ATSDR and the USEPA have shown that exposure to perchlorate by inhalation or contact with skin does not present a significant risk. The primary route of concern is drinking water, which can present a long-term daily exposure risk. Recent studies have shown that some food crops such as lettuce can have elevated levels of perchlorate when grown using water containing perchlorate.

The above potential toxic effects have been demonstrated in various animal studies and epidemiological studies. DTSC established a 6 ppb drinking water advisory standard for perchlorate, EPA's recently released Reference Dose (RfD) for perchlorate is equivalent to an exposure limit of 24 ppb. DTSC's public health goal and EPA's RfD are defined as levels of perchlorate which are known to be safe to ingest. These levels can be 100 or more times lower than the levels that are harmful to human health.

Since the local ground water in the area of the Sterling Site is at a depth of approximately 60 feet or more, and is not used for drinking water or irrigation, and the site will not be used for significant agriculture, the site will not present an increased risk to future site residents or adjacent residents. It should be understood that many drinking water supplies in California contain elevated levels of perchlorate, especially those using water from the Colorado River, and have been shown to not present a significant risk to the public.

#### 4.0 SCOPE OF WORK

##### 4.1 Initial Studies

Based on the location of the Sterling site to the Rocketdyne site, it was determined to sample a portion of the Dayton Canyon creek drainage running through the Sterling site for perchlorate and volatile organics such as Trichloroethylene and 1,1-Dichloroethylene. The creek appeared to be the most likely potential pathway for perchlorate to have theoretically migrated offsite from the Rocketdyne facility to the location of the proposed development, although there have been no prior test results to suggest such a migration had occurred. For evaluation purposes, the creek was divided into areas to facilitate the investigation, as shown in Figure 3.

Initially, four areas were selected for surface sediments to be collected as grab samples, as shown in Figure 3. The samples collected on May 26, 2005, were analyzed for perchlorates using USEPA Method 314.0, and USEPA Method 8260B for volatile organics compounds and chlorinated solvents such as Trichloroethylene.

##### 4.2 Surface Soils

As noted in the June 15, 2005 report; on May 27, 2005, Surface soils in the area of the proposed initial grading activities north of the creek were sampled. The surface soils were analyzed for perchlorate using USEPA Method 314.0. The surface soils were not analyzed for volatile organics, since it was unlikely that volatile organics could be present in exposed soils above the elevation of the creek. The surface soils were collected from 1" to 12" below ground surface (bgs). The locations of the surface soil sampling are shown in Figure 3.

On June 14, 2005, four additional surface soil samples were collected. These samples were collected from the surface soils approximately 20 feet from the center line of Dayton Canyon Creek and were collected to help define the limits of perchlorate impacts. The sampling locations are shown in Figure 3.

On July 11, 2005, six additional surface soils were collected (SS-8 through SS-13). Samples SS-8, SS-9 and SS-10 were collected from the western portion of the proposed development area. Samples SS-11, SS-12 and SS-13 were collected from the eastern development area. The sampling locations are

shown in Figure 3. The samples collected were analyzed for perchlorate using USPA Method 314.0. The samples were also analyzed for total CAM metals using USEPA Method 6010B/7471A.

#### 4.3 Sediments and Soils

To further understand the potential distribution and source of perchlorate in the creek area, samples were collected from the surface (unconsolidated sediments) and undisturbed soil samples were collected from depths of 1, 2, and 3 feet below ground surface (bgs), in dry portions of the creek bed. The location of these samples is shown in Figure 4. The samples were collected on June 2 and 3, 2005, and split for analysis by two certified laboratories. The laboratories selected were MWH Laboratories in Monrovia, California and Associated Labs in Orange, California.

Selected surface samples were analyzed for perchlorate using USEPA Method 314.0 and also analyzed for the presence of Nitrates, as an indicator of fertilizer usage which could be a possible source of perchlorates, using USEPA Method 300.

On June 18 and 20, 2005, additional sediment and soil samples were collected from the creek area. Two of the sampling locations selected were further west along the creek in areas 9, and 10 as shown in Figure 4. Three additional samples were collected from the lower portion of the creek area in areas 1, 2, 3 and 4 as shown in Figure 4. The samples from the lower creek area were collected from underneath several large rocks, and in one case a fallen tree trunk. The purpose of sample collection in these areas was to evaluate areas which could not have been exposed to perchlorate from a particulate or airborne source.

On July 11, 2005, three additional soil samples (4-14, 4-15 and 4-16) were collected from the area on the east side of the creek as shown in Figure 3. A sample (4-21) was collected from the eastern portion of the site near Valley Circle. This sample was collected in an area previously sampled by the RWQCB. The samples collected were analyzed for perchlorate using USPA Method 314.0. The samples were also analyzed for total CAM metals using USEPA Method 6010B/7471A.

#### 4.4 Plants and Debris Sampling

To determine the possible source of the perchlorate, and how it made contact with the surface of the creek at the levels that were detected, plant leaves in the area of the creek were collected for analysis for perchlorate. Leaves were collected from each of the areas shown in Figure 5. The leaves were selected from plants growing along side Dayton Canyon Creek. The leaves were selected from only plants which had new growth. Approximately 100 grams of plant leaves were cut from the plants and placed in sealed bags. Perchlorate

extraction was conducted to assure that only compounds present on the leaf surface were analyzed. Samples P-1 through P-10 were all extracted and analyzed by the laboratory for perchlorate using USEPA Method 314.0.

In addition to the sampling of the plants to determine the possible source of the perchlorate, plant debris in the area of the creek was also collected for analysis for perchlorate. Dried plant leaves were collected from each of the areas shown in Figure 5, with the exception of areas 8, and 9, where no significant plant debris was found. The plant debris was collected by hand, using clean nitrile gloves and placed in sealed bags. Perchlorate extraction was conducted to assure that only compounds present on the leaf surface were analyzed. Samples PD-1 to PD-7 and PD-10 were then analyzed by the laboratory for perchlorate using USEPA Method 314.0.

#### 4.5 Water Sampling

As requested by the DTSC and RWQCB, water samples were collected on July 19, 2005 from the creek in area 4, and from a seep located in area 8 on the east side of the creek. The water samples SW-1-4 and SEEP-1 were analyzed for perchlorate using USEPA Method 314.0.

#### 4.6 Perchlorate Confirmation Testing

As previously indicated, USEPA Method 314.0 for perchlorates may produce false positive results in some cases. A series of retained samples and samples collected from areas previously investigated were submitted to STL Laboratories in Sacramento for analysis using both USEPA Method 314.0 and 8321M. The purpose of this comparative analysis was to confirm the presence of perchlorate using US EPA Method 8321M, and to confirm the previous USEPA Method 314.0 results. One of the retained samples (Sample 4-5/25/05) submitted for analysis was beyond the recognized holding time for perchlorate. Because of the high levels observed in this sample, it was decided that the sample should still be analyzed. The results of these analyses will be reported separately on receipt of the data.

To investigate the potential origin of the perchlorate, selected samples, as shown in Table 2 were analyzed for strontium, a metal used in flares to produce the red glow. The presence of elevated levels of strontium in samples with high levels of perchlorate may indicate that the perchlorate found at the Sterling site was originally from road flares.

#### 4.7 Radiological Survey

Based on concerns at other developments near the Rocketdyne site, a preliminary radiological survey was conducted at the site on July 18 and 19, 2005. The radiological survey was conducted using a Ludlum 2241 Survey Meter with a Pancake Probe. As shown in Figure 6, the survey was



conducted along the creek, and in both of the proposed grading areas. The survey was performed by placing the pancake probe on the ground surface for one minute. The maximum rem (roentgen equivalent man) rate (microrem per hour) was then recorded, and the probe cleaned for the next area. A rem is a measure of the dose of any ionizing radiation to body tissue in terms of a biological effect. The global background radiation level is approximately 360 millirems per year or 41 microrems per hour.

## 5.0 RESULTS

### 5.1 Initial Studies

Initial samples were collected at the site on May 25, 2005. During these initial studies, four sediment samples (samples 1A-4) and one duplicate sample (sample 1B) were collected in jars and transported under chain of custody to MWH Laboratories for analysis of perchlorate and volatile organics. The results of this sampling indicated unexpectedly elevated and inconsistent levels of perchlorate as shown in Table 2, which ranged from 320 to 62,000 mg/kg (ppm). The sample collection locations are shown in Figure 3. Samples exceeding EPA's PRG of 7.8 mg/kg (ppm) are identified in red.

### 5.2 Surface Soils

On Friday, May 27, 2005, three surface soil samples were collected as shown in Figure 3. Two of the samples were collected in the areas indicated for future grading operations (samples SS-01 and SS-02). One surface sample (sample SS-03) was collected from soils adjacent to area 4 as indicated in Figure 3. Samples exceeding the PRG for perchlorate are identified in red.

The results of the analysis indicated perchlorate levels below the detection limits in samples from the two future grading areas (samples SS-01 and SS-02). Sample SS-03 showed elevated levels of perchlorate at 1,200 mg/kg (ppm) in the soil collected adjacent to the creek. The results of the sampling are presented in Table 2.

The results of the surface soils collected on June 14, 2005, outside but adjacent to the creek (SS-04 to SS-07) showed perchlorate levels below detection limits, as presented in Table 2.

The results of the additional surface soils collected on July 11, 2005 in the proposed grading areas (SS-8 through SS-13) showed perchlorate levels below detection limits, as presented in Table 2. Total metal levels were found to be below regulatory limits, and generally within accepted background ranges, as shown in Table 4.

### 5.3 Sediments and Soils

On June 2 and 3, 2005, samples of sediments and soils were collected from various locations in the Dayton Canyon creek drainage, as shown in Figure 4. In these areas, unconsolidated sediments were sampled followed by the collection of undisturbed soil samples at depths of 1, 2, and up to 3 feet below ground surface using an auger or drive sampler.

The samples collected were split into duplicate samples and transported under chain of custody to MWH Laboratories and Associated Laboratories for perchlorate analysis using USEPA Method 314.0.

The results of the analysis of the samples are presented in Table 2. The results of these analyses showed lower perchlorate levels relative to the initial analytical results. Samples collected in the area of the initial sampling showed elevated perchlorate levels in the sediments as shown in Figure 4. Elevated perchlorate levels were also observed in some of the 1 and 2 foot samples in the initial sampling area, as shown in Figure 4. Samples collected in the creek further west in areas 7 and 8 closer to the upstream tributaries from the Rocketdyne site, were below detection levels for perchlorate, as shown in Table 2 and Figure 4.

Selected sediment samples were also analyzed for the presence of nitrates using USEPA Method 300. Results of these analyses showed elevated nitrate levels in the areas with elevated perchlorate levels. High levels of nitrate are not normally found in undisturbed surface soils in and around creeks. The presence of elevated nitrate levels may indicate that a nitrate fertilizer was recently applied to the area, which could have contained perchlorate.

On June 18 and 20, 2005 sediments and soils were collected in the western areas 9 and 10 of the Dayton Canyon creek drainage. Three samples were also collected in areas 1, 2, 3 and 4 from underneath rocks and in one case a fallen tree trunk. No detectable levels of perchlorate were found in the upper western creek samples or from the samples collected from under the rocks and log.

The results of the soil sampling (samples 4-14, 4-15 and 4-16) conducted on the east side of the creek on July 11, 2005, showed no detectable levels of perchlorate. Total metal levels were found to be below regulatory limits, and generally within accepted background ranges, as shown in Table 4.

### 5.4 Plant and Plant Debris

On June 18 and 20, 2005, plant leaves were collected from the Dayton Canyon Creek, as described in Section 4.4. The leaves were collected from plants with new growth from along side the creek. The leaves were analyzed for perchlorate using USEPA method 314.0. The results of these analyses showed high levels of perchlorate on the surface of the leaves in Areas 1, 2, 3, and 4.

The levels of perchlorate on the leaves in this area were relatively consistent, ranging from 32 to 42 mg/kg (ppm) as shown in Table 2. Samples collected from areas 5 -10, showed significantly lower perchlorate levels.

On June 18 and 20, 2005, plant debris was collected from the creek area, as described in Section 4.4. The debris was collected from the same area as the plant leaves described above. The debris was analyzed for perchlorate using USEPA Method 314. The results of these analyses showed high levels of perchlorate on the surface of the debris in Areas 1, 2, 3, and 4. The levels of perchlorate on the debris in this area were relatively consistent, ranging from 42 to 57 mg/kg (ppm) as shown in Table 2. Samples collected from area 5, 6, 7, and 10 showed significantly lower perchlorate level. Samples were not collected in areas 7 and 8 since the area was sparsely vegetated and was primarily rocks with very little plant debris and was heavily infested with ants.

### 5.5 Water Sampling

As previously discussed in Section 4.5, water samples were collected on July 19, 2005 from the creek in area 4, and from a seep on the eastern side of area 8. The results of analysis of these samples indicated the perchlorate levels were below the detection limit of 4 ppb in water.

### 5.6 Perchlorate Confirmation Testing

As previously indicated, USEPA Method 314.0 for perchlorates may produce false positive results in some cases. A series of retained samples and samples collected from areas previously investigated, as shown in Table 3, were submitted to STL Laboratories in Sacramento for analysis using both USEPA Method 314.0 and 8321 M. The results of these analyses are pending at this time. Once the results are available, a separate report will be prepared documenting the findings.

As previously discussed in Section 4.6, selected retained samples were analyzed for strontium using USEPA Method 6010B, to determine if the perchlorate found at the site could have come from road flares. As shown in Table 3, strontium was found in each of the three samples at levels ranging from 4.4 ppm to 32.7 ppm.

### 5.7 Radiological Survey Results

As shown in Table 5, no significant residual radioactivity was observed in the areas monitored. All of the results were below the instruments detection limit of 10 microrems per hour.

## 6.0 DISCUSSION

The results of the initial sampling described in Section 5.1, indicate elevated and

inconsistent perchlorate levels, which are not consistent with the physical setting and the run off conditions or prior sampling data from the Rocketdyne site. The levels found exceeded the levels typically found at current and former rocket and missile processing and testing sites, as shown in Table 1. Further, the presence of elevated perchlorate in the creek sediments is also unlikely when these samples were taken, due to the high volume of flow through the creek this year from heavy rains. Given these run-off conditions and rainfall amounts from this past season, perchlorate present in the creek sediments would be quickly dissolved or washed away.

In addition, the results of the sediment and soil samples collected upstream toward Rocketdyne were below detection limits for perchlorate, as shown in Table 3. Perchlorate was not detected in most of the deeper samples, indicating that the perchlorate has not had sufficient time to dissolve and infiltrate downward, or that there is an insufficient mass of perchlorate in the surface soils to contaminate the soil column. Further, samples collected in the area of the initial sampling showed elevated levels of nitrates, possibly from fertilizer application or other unknown activities.

Analysis of recent growth plant leaves and debris from the creek area showed extremely high levels of perchlorate on the surfaces of the leaves. The presence of high levels of perchlorate on the surface of the leaves in the lower creek area cannot be explained by any normal transport mechanism. The results of the plant leaves and debris analysis shown in Figure 5 indicate relatively uniform levels of perchlorate along areas 1, 2, 3 and 4. Analysis of two of the plant and plant debris samples show elevated levels of strontium on the leaf surfaces. Further the results of samples 3-11, 3-12 and 3-13 in areas 1, 2, 3, and 4 which were collected from underneath rocks or a log, showed no detectable levels of perchlorate. If the perchlorate was transported down stream, then the water and soils under these materials would have been expected to contain elevated levels of perchlorate, consistent with levels detected in surrounding soil sediments.

As shown in Table 2, the variation in split samples is significant. The large variation demonstrates that the perchlorate is not uniformly distributed in the soil, but appears to occur in a point source type manner. The areas where perchlorate was detected are isolated by larger areas where no perchlorate was detected.

As shown in Figure 2, the Sterling site is a substantial distance from the Rocketdyne site and is located in a remote drainage area. Based on the surficial nature of the perchlorate concentrations, and the random distribution on the perchlorate in the creek area, and the other characteristics of the areas where perchlorate was not detected, the samples are consistent with perchlorate in limited, isolated areas. The source of the perchlorate or mechanism of its release has not been identified. Samples collected from the proposed development areas and east of the creek, showed levels of perchlorate below detection limits, and levels of metal below regulatory limits. These results indicate that the perchlorate identified in the creek was not transported via these areas by runoff or surface soil movement. The results of the water and seep analyses also indicate that runoff from the upper creek is not a source of perchlorate. Therefore, based on the current data, it is clear that the perchlorate levels recently

detected in the creek are not from transport by flow through the creek from Rocketdyne or from airborne particulate transfer from their property. Based on the data collected, it appears that the perchlorate in the creek is from an exogenous and unidentified source.

## 7.0 RECOMMENDATIONS

Although elevated levels of perchlorate were observed in certain specific areas, it appears that the mass of material is limited and confined to sediments in the stream creek bed and banks. To assure that levels of perchlorate are within acceptable limits, the creek area should be managed as follows:

- Meet with the DTSC Representatives to discuss the data and verify their recommendations for the remediation of this area.
- Prepare necessary workplans and complete any supplemental investigations.
  - Complete any supplemental investigations necessary to obtain closure by the DTSC for the proposed development area, to allow grading and construction.
- Excavate approximately one to two feet of sediment from the creek in areas 1 through 4, as shown in Figure 3 or as indicated by any additional investigations.
  - Screen the excavation materials as follows
    - Remove and dispose of debris
    - Decontaminate rocks and return to the creek.
    - Stockpile sediments and dispose of perchlorate impacted materials offsite or onsite in appropriate areas, by mixing with clean soils to reduce contamination.
  - Confirm perchlorate removed from the creek by sampling and analysis of the base and adjacent soils.

To assure that perchlorate levels are within acceptable limits in the areas of future development, the following tasks should be implemented:

- Air quality monitoring should be conducted during all grading operations, to assure compliance with AQMD regulations
  - Down wind dust monitoring and sampling should be conducted.
- Prior to grading, sampling for perchlorate should be conducted at a density of at least one sample per acre.

To assure that the results presented in this report are accurate, selected samples are being analyzed using UEPA Method 8321M. These confirmation analyses are being conducted

now, and will be presented in a supplemental report.

## 8.0 STATEMENT OF LIMITATIONS

Information provided in this report by Allwest Remediation, Inc., Project Number 05-8520 EI 01 is intended exclusively for the use of Morrison and Foerster in the assessment of potential environmental liability for the subject property. The findings and conclusions discussed in this report are based on field and laboratory data collected during the course of this investigation and our current understanding and interpretation of environmental regulatory agency regulations, guidelines and policies. The professional services have been performed in accordance with practices generally accepted by other construction engineers, geologists, hydrogeologists, environmental engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. There is no guarantee that the work conducted will identify any and all sources or locations of contamination.

Respectfully submitted,

ALLWEST REMEDIATION, INC.

  
RICHARD SCOTT

For Operations Manager

  
JOHN A. LANDGARD

President

## TABLES

**TABLE 1**  
**TYPICAL ONSITE PERCHLORATE CONCENTRATIONS IN SOILS**  
**FORMER ROCKET AND MISSILE TESTING LOCATIONS**

FACILITY	TYPICAL SOIL CONCENTRATIONS (mg/kg) (1)
AEROJET RANCHO CORDOVA, CA.	1.2 mg/kg
BERMITE CORP. VALENCIA, CA.	0.75 mg/kg
ROCKETDYNE SANTA SUSANA, CA.	0.56 mg/kg
LOCKHEED MARTIN RIVERSIDE, CA.	1.4 mg/kg

(1) Typical levels identified at former rocket and missile test facilities from areas with extensive perchlorate usage.



**TABLE 2**  
**SUMMARY OF ANALYTICAL RESULTS**

SAMPLE	DATE	SAMPLE TYPE	PERCHLORATE (mg/kg) (ppm)		PERCHLORATE STL LABORATORIES (mg/Kg)		VOC's (µg/kg) (ppb)	NITRATE (mg/kg) (ppm)	STRONTIUM (mg/kg) (ppm)
			MWH	ASSOC.	EPA 314.0	EPA 8321m	MWH	ASSOC.	ASSOC.
1-A	5/25/05	G	4,100	-	-	-	<5	-	-
1-B	5/25/05	G	320	-	-	-	<5	-	-
2	5/25/05	G	1,800	-	-	-	<5	-	-
3	5/25/05	G	62,000	-	-	-	<5	-	-
4	5/25/05	G	4000	-	-	-	<5	-	-
4b	5/25/06	G	-	-	(1)	(1)	-	-	-
SS-01	5/27/05	G	<0.04	-	-	-	-	-	-
SS-02	5/27/05	G	<0.04	-	-	-	-	-	-
SS-03	5/27/05	G	1,400	-	-	-	-	-	-
SS-04	6/14/05	G	-	<0.04	-	-	-	-	-
SS-05	6/14/05	G	-	<0.04	-	-	-	-	-
SS-06	6/14/05	G	-	<0.04	-	-	-	-	-
SS-07	6/14/05	G	-	<0.04	-	-	-	-	-
SS-08	7/11/05	G	-	<0.04	-	-	-	-	-
SS-09	7/11/05	G	-	<0.04	-	-	-	-	-
SS-10	7/11/05	G	-	<0.04	-	-	-	-	-
SS-11	7/11/05	G	-	<0.04	-	-	-	-	-
SS-12	7/11/05	G	-	<0.04	-	-	-	-	-
SS-13	7/11/05	G	-	<0.04	-	-	-	-	-
2-1-0	6/2/05	G	1,000	4.08	-	-	-	67.2	-
2-1-1	6/2/05	A	4.5	0.148	-	-	-	-	-
2-1-2	6/2/05	D/S	14	0.044	-	-	-	-	-
2-1-3	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-2-0	6/2/05	G	6,000	8.7	-	-	-	21.4	-
2-2-1	6/2/05	A	8.5	0.173	-	-	-	-	-
2-2-2	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-2-3	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-3-0	6/2/05	G	520	0.870	-	-	-	15.1	-
2-3-1	6/2/05	A	6.5	<0.04	-	-	-	-	-
2-3-2	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-3-3	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-4-0	6/2/05	G	<0.04	0.055	-	-	-	10.4	-
2-4-1	6/2/05	A	40	<0.04	-	-	-	-	-
2-4-2	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-4-3	6/2/05	D/S	<0.04	<0.04	-	-	-	-	-
2-5-0	6/3/05	G	<0.04	0.052	-	-	-	-	-
2-5-1	6/3/05	A	<0.04	0.244	-	-	-	-	-
2-5-2	6/3/05	D/S	11	0.060	-	-	-	-	-
2-6-0	6/3/05	G	<0.04	0.346	-	-	-	-	-
2-6-1	6/3/05	A	<0.04	0.082	-	-	-	-	-
2-6-2	6/3/05	D/S	<0.04	99.5	-	-	-	-	32.7
2-7-0	6/3/05	G	<0.04	<0.04	-	-	-	-	-
2-7-1	6/3/05	A	<0.04	<0.04	-	-	-	-	-
2-7-2	6/3/05	D/S	<0.04	<0.04	-	-	-	-	-
2-8-0	6/3/05	G	<0.04	<0.04	-	-	-	-	-
2-8-1	6/3/05	A	<0.04	<0.04	-	-	-	-	-
2-8-2	6/3/05	D/S	<0.04	<0.04	-	-	-	-	-

G = Grab sample  
D/S = Drive sample  
A = Hand auger  
P = Plant samples  
PD = Plant debris  
(1) = Pending analysis

**TABLE 2 (CONT)**  
**SUMMARY OF ANALYTICAL RESULTS**

SAMPLE	DATE	SAMPLE TYPE	PERCHLORATE (mg/kg) (ppm)		PERCHLORATE STL LABORATORIES (mg/Kg)		VOC's (ug/kg) (ppb)	NITRATE (mg/kg) (ppm)	STRONTIUM (mg/kg) (ppm)
			MWH	ASSOC.	EPA 314.0	EPA 8321m	MWH	ASSOC.	ASSOC.
3-9-0	6/20/05	G	-	<0.04	-	-	-	44.8	-
3-10-0	6/20/05	G	-	<0.04	-	-	-	16.8	-
3-11-0	6/20/06	G	-	<0.04	-	-	-	47.1	-
3-12-0	6/20/05	G	-	<0.04	-	-	-	42.8	-
3-13-0	6/20/05	G	-	<0.04	-	-	-	35.6	-
4-14-0	7/11/05	G	-	<0.04	-	-	-	-	-
4-15-0	7/11/05	G	-	<0.04	-	-	-	-	-
4-16-0	7/11/05	G	-	<0.04	-	-	-	-	-
4-17-0	7/11/05	G	-	-	(1)	(1)	-	-	-
4-18-0	7/11/05	G	-	-	(1)	(1)	-	-	-
4-19-0	7/11/05	G	-	-	(1)	(1)	-	-	-
4-20-0	7/11/05	G	-	-	(1)	(1)	-	-	-
4-21-0	7/11/05	G	-	<0.04	-	-	-	-	-
P-1	6/20/05	P	-	33	-	-	-	-	-
P-2	6/20/05	P	-	43.9	-	-	-	-	-
P-3	6/20/05	P	-	32.2	-	-	-	-	-
P-4	6/20/05	P	-	57.7	-	-	-	-	-
P-4b	6/20/06	P	-	-	(1)	(1)	-	-	4.41
P-5	6/20/05	P	-	0.24	-	-	-	-	-
P-6	6/20/05	P	-	0.18	-	-	-	-	-
P-7	6/20/05	P	-	0.31	-	-	-	-	-
P-7b	6/20/06	P	-	-	(1)	(1)	-	-	-
P-8	6/20/05	P	-	0.26	-	-	-	-	-
P-9	6/20/05	P	-	0.08	-	-	-	-	-
P-10	6/20/05	P	-	0.05	-	-	-	-	-
PD-1	6/20/05	PD	-	51.6	-	-	-	-	-
PD-2	6/20/05	PD	-	48.3	-	-	-	-	-
PD-3	6/20/05	PD	-	52.8	-	-	-	-	-
PD-4	6/20/05	PD	-	42	-	-	-	-	-
PD-5	6/20/05	PD	-	<0.04	-	-	-	-	11.0
PD-6	6/20/05	PD	-	8.4	-	-	-	-	-
PD-7	6/20/05	PD	-	0.31	-	-	-	-	-
PD-10	6/20/05	PD	-	<0.04	-	-	-	-	-
SW-1	7/19/05	G	-	<0.004	-	-	-	-	-
SEEP-1	7/19/05	G	-	<0.004	-	-	-	-	-

G = Grab sample  
D/S = Drive sample  
A = Hand auger  
P = Plant samples  
PD = Plant debris  
(1) = Pending analysis

TABLE 3  
SUMMARY OF PERCHLORATE DATA BY AREA

CREEK AREA (1)	SAMPLE #	DATE	TYPE	DEPTH (ft)	PERCHLORATE (mg/L)			NITRATE (mg/L)	STRONTIUM (mg/L)	NOTES	Sample				
					MGW	ASSOCIATED	STL				Type S	Type P	Type PD	Type SS	Type W
1	1A	6/26/05	S	0	4.100						1	0	0	0	0
	1B	6/26/05	S	0	3.30						1	0	0	0	0
	P-1	6/26/05	P	0		33					0	1	0	0	0
	PD-1	6/26/05	PD	0		62					0	0	1	0	0
	4-200	7/11/05	S	0			PENDING				1	0	0	0	0
	4-210	7/11/05	S	0		<0.04					1	0	0	0	0
	SS-7	6/14/05	SS	0		<0.04					0	0	0	1	0
Subtotal:															
2	2	6/26/05	S	0	1.800						4	1	1	1	0
	2-0	6/26/05	S	0	620	0.87		15.1			1	0	0	0	0
	2-1	6/26/05	S	1	6.5	<0.04					1	0	0	0	0
	2-2	6/26/05	S	2	<0.04	<0.04					1	0	0	0	0
	2-3	6/26/05	S	3	<0.04	<0.04					1	0	0	0	0
	P-2	6/26/05	P	0		43.9					0	1	0	0	0
	PD-2	6/26/05	PD	0		48.3					0	0	1	0	0
3	SS-8	6/14/05	SS	0		<0.04					0	0	0	1	0
	4-18-0	7/11/05	S	0			PENDING				1	0	0	0	0
	3-12-0	6/26/05	S	0		<0.04		42.8		Collected between area 2 & 3	1	0	0	0	0
Subtotal:															
4	3	6/26/05	S	0	62.000						7	1	1	1	0
	2-1-0	6/26/05	S	0	1.000	4.08		67.2			1	0	0	0	0
	2-1-1	6/26/05	S	1	4.5	0.15					1	0	0	0	0
	2-1-2	6/26/05	S	2	14	0.04					1	0	0	0	0
	2-1-3	6/26/05	S	3	<0.04	<0.04					1	0	0	0	0
	P-3	6/26/05	P	0		32.2					0	1	0	0	0
	PD-3	6/26/05	PD	0		62.8					0	0	1	0	0
4	SS-5	6/14/05	SS	0		<0.04					0	0	0	1	0
	4-18-0	7/11/05	S	0			PENDING				1	0	0	0	0
	3-13-0	6/26/05	S	0		<0.04		35.8		Collected between area 3 & 4	1	0	0	0	0
Subtotal:															
4	4	6/26/05	S	0	4.000						7	1	1	1	0
	2-2-0	6/26/05	S	0	6.000	8.7		21.4			1	0	0	0	0
	2-2-1	6/26/05	S	1	8.5	0.17					1	0	0	0	0
	2-2-2	6/26/05	S	2	<0.04	<0.04					1	0	0	0	0
	2-2-3	6/26/05	S	3	<0.04	<0.04					1	0	0	0	0
	P-4	6/26/05	P	0		67.7					0	1	0	0	0
	PD-4	6/26/05	PD	0		42				Collected same area as P-4	0	1	0	0	0
4	3-11	6/26/05	S	0		<0.04		47		Collected west end of area 4	1	0	0	0	0
	4-17-0	7/11/05	S	0			PENDING				1	0	0	0	0
	SS-3	6/27/05	SS	0	1.200						0	0	0	1	0
	SS-4	6/14/05	SS	0		<0.04					0	0	0	1	0
Subtotal:															
We Water															

S = Soil  
P = Plant Leaves  
PD = Plant Debris  
SS = Surface Soil

TABLE 3 (CONT.)  
SUMMARY OF PERCHLORATE DATA BY AREA

CREEK AREA (I)		SAMPLE #	DATE	TYPE	DEPTH (ft)	PERCOLATE (gpc/hrs)		NITRATE	STRONTIUM	NOTES	Sample Type S	Sample Type P	Sample Type PD	Sample Type SS	Sample Type W
						MYWH	ASSOCIATED	STL	(ppm/gpc/hrs)	(mg/L gpc/hrs)					
5		2-0	8/20/05	S	0	<0.04	0.095				I	0	0	0	0
		2-4-1	8/20/05	S	1		<0.04				I	0	0	0	0
		2-4-2	8/20/05	S	2	<0.04	<0.04				I	0	0	0	0
		2-4-3	8/20/05	S	3	<0.04	<0.04				I	0	0	0	0
		P-5	8/20/05	P	0		0.24				0	1	0	0	0
		PD-5	8/20/05	PD	0		<0.04				0	0	1	0	0
Subtotal:		4									4	1	1	0	0
6		2-5-0	8/20/05	S	0	<0.04	>0.062				I	0	0	0	0
		2-5-1	8/20/05	S	1	<0.04	0.244				I	0	0	0	0
		2-5-2	8/20/05	S	2	11	0.09				I	0	0	0	0
		P-6	8/20/05	P	0		0.18				0	1	0	0	0
		PD-6	8/20/05	PD	0		0.4				0	0	1	0	0
		2-6-0	8/20/05	S	0	<0.04	0.346				I	0	0	0	0
7		2-6-1	8/20/05	S	1	<0.04	0.082				I	0	0	0	0
		2-6-2	8/20/05	S	2	<0.04	99.5				I	0	0	0	0
	Subtotal:		6								6	1	1	0	0
		2-7-0	8/20/05	S	0	<0.04	<0.04				I	0	0	0	0
		2-7-1	8/20/05	S	1	<0.04	<0.04				I	0	0	0	0
		2-7-2	8/20/05	S	2	<0.04	<0.04				I	0	0	0	0
8		P-7	8/20/05	P	0		0.31				0	1	0	0	0
		P-7B	7/11/05	P	0		PENDING				0	1	0	0	0
		PD-7	8/20/05	PD	0		NS				0	0	1	0	0
	Subtotal:		6								6	2	1	0	0
		2-8-0	8/20/05	S	0	<0.04	<0.04				I	0	0	0	0
		2-8-1	8/20/05	S	1	<0.04	<0.04				I	0	0	0	0
9		2-8-2	8/20/05	S	2	<0.04	<0.04				I	0	0	0	0
		P-8	8/20/05	P	0		0.28				0	1	0	0	0
		PD-8	8/20/05	PD	0		NS				0	0	1	0	0
	Subtotal:		6								6	1	1	0	0
		3-9-0	8/20/05	S	0	<0.04		44.8			I	0	0	0	0
		P-9	8/20/05	P	0		0.08				0	1	0	0	0
Subtotal:		2									2	1	0	0	
10		3-10-0	8/20/05	S	0		<0.04		18.8		I	0	0	0	0
		P-10	8/20/05	P	0		0.05				0	1	0	0	0
		PD-10	8/20/05	P	0						0	0	1	0	0
	Subtotal:		2									2	1	0	0
		Grading Phase I													
		SS-1	6/27/05	SS	0	<0.04	<0.04				0	0	0	0	0
Grading Phase I		SS-8	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-9	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-10	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-11	6/27/05	SS	0	<0.04	<0.04				0	0	0	0	0
		SS-12	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-13	7/11/05	SS	0		<0.04				0	0	0	0	0
Grading Phase II		SS-14	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-15	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-16	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-17	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-18	7/11/05	SS	0		<0.04				0	0	0	0	0
		SS-19	7/11/05	SS	0		<0.04				0	0	0	0	0
Surface Water		SW-1	7/18/05	W			<0.04				0	0	0	0	0
		SW-2	7/18/05	W			<0.04				0	0	0	0	0
		SW-3	7/18/05	W			<0.04				0	0	0	0	0
		SW-4	7/18/05	W			<0.04				0	0	0	0	0
		SW-5	7/18/05	W			<0.04				0	0	0	0	0
		SW-6	7/18/05	W			<0.04				0	0	0	0	0
Subtotal:		6									6	6	6	6	6
S = Soil		W = Water													
P = Plant Leaves															
PD = Plant Dead															
		ALL 76 43 12 8 13 2													

**TABLE 4**  
**SUMMARY OF LABORATORY ANALYSIS**  
**METALS - EPA METHOD 6010B/7471A**

METALS	UNITS	TTL mg/kg	STLC mg/l	SS-08	SS-09	SS-10	SS-11	SS-12	SS-13	4-14-0	4-15-0	4-16-0	4-21-0
Antimony	mg/kg	500	15	1.78	2.16	2.15	2.34	1.74	2.16	2.49	2.5	2.72	2.32
Arsenic	mg/kg	500	5.0	5.03	5.02	5.05	4.7	4.95	4.79	5.53	4.53	4.97	4.97
Barium	mg/kg	10,000	100	74.2	76.4	65.5	70.8	70.9	71.4	75.7	71.4	76	70.2
Beryllium	mg/kg	75	0.75	0.87	0.876	0.798	0.791	0.773	0.77	0.924	0.844	0.861	0.828
Cadmium	mg/kg	75	1.0	0.294	0.329	0.285	0.304	0.292	0.331	0.383	0.293	0.305	0.317
Chromium +3	mg/kg	2,500	5.0	17.9	18.5	16.3	16.6	16.7	17.7	17.9	17.1	18.6	17.3
Chromium +6	mg/kg	500	5.0	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Cobalt	mg/kg	8,000	80	6.05	6.25	5.57	5.62	5.58	5.75	5.95	5.78	6.12	5.83
Copper	mg/kg	2,500	25	5.42	6.09	4.63	5.28	5.36	5.67	5.36	5.24	5.27	5.03
Lead	mg/kg	1,000	5.0	14.3	14.5	13.8	14.2	13.3	13.4	14	13.3	14.4	13.9
Molybdenum	mg/kg	3,500	350	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel	mg/kg	2,000	20	12.5	13.1	11.6	11.9	12	12.5	12.7	12	12.6	11.9
Selenium	mg/kg	100	1.0	<1	<1	<1	<1	<1	<1	<1.0	<1	<1	<1
Silver	mg/kg	500	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	mg/kg	700	7.0	<1	<1	<1	<1	<1	<1	<1.0	<1	<1	<1
Vanadium	mg/kg	2,400	24	32.4	36.1	27.5	30.8	31.2	32.3	34.2	32	34.1	32.2
Zinc	mg/kg	5,000	250	49.9	54.7	47.2	48	47.7	49.7	52.2	48.2	51.3	48.1
Mercury	mg/kg	20	2.0	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14

(1) TOTAL CHROMIUM WAS ANALYZED ASSUMING ALL OF THE CHROMIUM IS PRESENT AS CHROMIUM 6+, ALL OF THE VALUES ARE WELL BELOW REGULATORY LIMITS FOR BOTH TOTAL AND SOLUBLE CHROMIUM 6+.

**TABLE 5**  
**SUMMARY OF RADIOLOGICAL SURVEY RESULTS**

SAMPLE I.D.	LOCATION	DATE	MICROREM/HOUR
RS-1	Area 1	7/18/2005	< 10
RS-2	Area 2	7/18/2005	< 10
RS-3	Area 3	7/18/2005	< 10
RS-4	Area 4	7/18/2005	< 10
RS-5	Area 5	7/18/2005	< 10
RS-6	Area 6	7/18/2005	< 10
RS-7	Area 7	7/18/2005	< 10
RS-8	Area 8	7/18/2005	< 10
RS-9	Area 9	7/18/2005	< 10
RS-10	Area 10	7/18/2005	< 10
RS-11	Tract 2	7/18/2005	< 10
RS-12	Tract 2	7/18/2005	< 10
RS-13	Tract 2	7/18/2005	< 10
RS-14	Tract 2	7/18/2005	< 10
RS-15	Tract 2	7/19/2005	< 10
RS-16	Tract 2	7/19/2005	< 10
RS-17	Tract 2	7/19/2005	< 10
RS-18	Tract 1	7/19/2005	< 10
RS-19	Tract 1	7/19/2005	< 10
RS-20	Tract 1	7/19/2005	< 10
RS-21	Tract 1	7/19/2005	< 10
RS-22	Tract 1	7/19/2005	< 10
RS-23	Tract 1	7/19/2005	< 10
RS-24	Tract 1	7/19/2005	< 10
RS-25	Tract 1	7/19/2005	< 10
RS-26	S.Road	7/19/2005	< 10
RS-27	S.Road	7/19/2005	< 10
RS-28	S.Road	7/19/2005	< 10

## FIGURES





## APPENDIX A



## MWH Laboratories

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### Laboratory Report

for

Allwest Remediation, Inc.  
1201 N. Barsten Way

Anaheim, , CA 92806

Attention: Richard Scott  
Fax: (714) 237-1202



YOM Yolanda Martin  
Project Manager

Report#: 149044  
SOIL

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page is a Data Report, totaling 1 page[s].



# MWH Laboratories

A Division of MWH Americas, Inc.

750 Royal Oaks Drive  
Suite 100  
Monrovia, California 91016-3629  
Tel: 626 568 6400  
Fax: 626 568 6324  
1 800 566 LABS (1 800 566 5227)

## Laboratory Data Report

#149045

Allwest Remediation, Inc.  
Richard Scott  
1201 N. Barsten Way  
Anaheim, , CA 92806

Samples Received  
05/27/05

Anal	Method	Analyte	Result	Units	MRL
1-01 (2505270021)	Sampled on 05/27/05 08:30				
05/28/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
1-02 (2505270022)	Sampled on 05/27/05 09:30				
05/28/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
1-03 (2505270023)	Sampled on 05/27/05 10:30				
05/31/05 (OCADHS/EPA314 )	Perchlorate	1400	mg/kg	2.0	



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1 800 566 LABS (1 800 566 5227)

### Laboratory Report

for

Allwest Remediation, Inc.  
1201 N. Barsten Way

Anaheim, , CA 92806

Attention: Richard Scott  
Fax: (714) 237-1202



YOM Yolanda Martin  
Project Manager

Report#: 149428  
SOIL

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# MWH Laboratories

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## Laboratory Data Report

#149428

Allwest Remediation, Inc.  
Richard Scott  
1201 N. Barsten Way  
Anaheim, , CA 92806

Samples Received  
06/04/05

Anal	Method	Analyte	Result	Units	MRL
2 1-1 (2506040030)	Sampled on 06/02/05 00:00				
06/01/05 (OCADHS/EPA314 )	Perchlorate	4.5	mg/kg	0.040	
2 1-2 (2506040031)	Sampled on 06/02/05 00:00				
06/08/05 (OCADHS/EPA314 )	Perchlorate	14	mg/kg	0.040	
2 1-3 (2506040032)	Sampled on 06/02/05 00:00				
06/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
2 2-1 (2506040033)	Sampled on 06/02/05 00:00				
5/07/05 (OCADHS/EPA314 )	Perchlorate	8.5	mg/kg	0.040	
2 2-2 (2506040034)	Sampled on 06/02/05 00:00				
5/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
2 2-3 (2506040035)	Sampled on 06/02/05 00:00				
5/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
2-3-1 (2506040036)	Sampled on 06/02/05 00:00				
5/07/05 (OCADHS/EPA314 )	Perchlorate	6.5	mg/kg	0.040	
2-3-2 (2506040037)	Sampled on 06/02/05 00:00				
5/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
2-3-3 (2506040038)	Sampled on 06/02/05 00:00				
5/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	



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## Laboratory Data Report

#149428

Allwest Remediation, Inc.  
(continued)

Anal	Method	Analyte	Result	Units	MRL
2-4-1 (2506040039)	Sampled on 06/02/05 00:00				
06/07/05 (OCADHS/EPA314 )	Perchlorate	40	mg/kg	0.040	
2-4-2 (2506040040)	Sampled on 06/02/05 00:00				
06/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
2-4-3 (2506040041)	Sampled on 06/02/05 00:00				
06/07/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	



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1 800 586 LABS (1 800 566 5227)

### **Laboratory Report**

for

Allwest Remediation, Inc.  
1201 N. Barsten Way

Anaheim, , CA 92806

Attention: Richard Scott  
Fax: (714) 237-1202



YOM Yolanda Martin  
Project Manager

Report#: 149429  
SOIL

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Data Report, totaling 2 page[s].



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## Laboratory Data Report

#149429

Allwest Remediation, Inc.  
Richard Scott  
1201 N. Barsten Way  
Anaheim, , CA 92806

Samples Received  
06/04/05

Anal	Method	Analyte	Result	Units	MRL
2-5-0 (2506040042)	Sampled on 06/03/05 00:00				
06/07/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-5-1 (2506040043)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-5-2 (2506040044)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	11	mg/kg	0.040	
2-6-0 (2506040045)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-6-1 (2506040046)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-6-2 (2506040047)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-7-0 (2506040048)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-7-1 (2506040049)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	
2-7-2 (2506040050)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314)	Perchlorate	ND	mg/kg	0.040	





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## Laboratory Data Report

#149429

Allwest Remediation, Inc.  
(continued)

Anal	Method	Analyte	Result	Units	MRL
2-8-1 (2506040051)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
-8-2 (2506040052)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
-6-3 (2506040053)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	
-8-0 (2506040054)	Sampled on 06/03/05 00:00				
06/08/05 (OCADHS/EPA314 )	Perchlorate	ND	mg/kg	0.040	

# ASSOCIATED LABORATORIES LAB REQUEST SUMMARY

JUN 07 5

Client ID: 8349

Allwest Remediation Inc.  
Attn: Richard Scott  
1201 N. Barsten Way  
Anaheim, CA 92806

Lab Request: 151609

Date Received: 06/06/2005

Project Mgr.: ESB

Phone: 714-237-1201 Fax: 714-237-1202

Submitter: Client

Project: 05 8520-E1

REVIEW	BY	DATE
LOG IN	DR	6/6
DATA	BS	6-8
QC		
FINAL RPT		

## PRIORITY

Order No.: 625808 Matrix: SOLID Log Date: 06/06/2005@14:38 Due Date: 06/08/2005

Client Smpl. ID: 2-1-1 Sampled: 06/03/2005 Status: Logged

Method	Profile	Test Name	Analyte	Service Group
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

**!PRIORITY!**

Order No.: 625809 Matrix: SOLID Log Date: 06/06/2005@14:38 Due Date: 06/08/2005

Client Smpl. ID: 2-1-2 Sampled: 06/03/2005 Status: Logged

Method	Profile	Test Name	Analyte	Service Group
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

**!PRIORITY!**

Order No.: 625810 Matrix: SOLID Log Date: 06/06/2005@14:38 Due Date: 06/08/2005

Client Smpl. ID: 2-1-3 Sampled: 06/03/2005 Status: Logged

Method	Profile	Test Name	Analyte	Service Group
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

**!PRIORITY!**

Order No.: 625811 Matrix: SOLID Log Date: 06/06/2005@14:38 Due Date: 06/08/2005

Client Smpl. ID: 2-2-1 Sampled: 06/03/2005 Status: Logged

Method	Profile	Test Name	Analyte	Service Group

**!PRIORITY!**

Logged By: ALBERTV

Lab Request 151609 ticket page 1 of 6

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 151,609

Order #: 625808 Client Smpl ID: 2-1-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	6/6	RC	1	0.148	0.04	mg/Kg

Comments:

Order #: 625809 Client Smpl ID: 2-1-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	6/6		1	0.044	0.04	mg/Kg

Comments:

Order #: 625810 Client Smpl ID: 2-1-3

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625811 Client Smpl ID: 2-2-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	6/7		1	0.173	0.04	mg/Kg

Comments:

Order #: 625812 Client Smpl ID: 2-2-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625813 Client Smpl ID: 2-2-3

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	6/6		1	ND	0.04	mg/Kg

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 151,609

Order #: 625814 Client Smpl ID: 2-3-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/6		1	ND	0.04	mg/Kg

Comments:

Order #: 625815 Client Smpl ID: 2-3-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/6		1	ND	0.04	mg/Kg

Comments:

Order #: 625816 Client Smpl ID: 2-3-3

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/6		1	ND	0.04	mg/Kg

Comments:

Order #: 625817 Client Smpl ID: 2-4-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/6		1	ND	0.04	mg/Kg

Comments:

Order #: 625818 Client Smpl ID: 2-4-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625819 Client Smpl ID: 2-4-3

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials.

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 151,609

Order #: 625820 Client Smpl ID: 2-5-0

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	0.052	0.04	mg/Kg

Comments:

Order #: 625821 Client Smpl ID: 2-5-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	0.244	0.04	mg/Kg

Comments:

Order #: 625822 Client Smpl ID: 2-5-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	0.060	0.04	mg/Kg

Comments:

Order #: 625823 Client Smpl ID: 2-6-0

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		2	0.346	0.04	mg/Kg

Comments:

Order #: 625824 Client Smpl ID: 2-6-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	0.082	0.04	mg/Kg

Comments:

Order #: 625825 Client Smpl ID: 2-6-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		500	99.5	0.04	mg/Kg

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 151,609

Order #: 625826 Client Smpl ID: 2-7-0

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
114	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625827 Client Smpl ID: 2-7-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625828 Client Smpl ID: 2-7-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
114	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625829 Client Smpl ID: 2-8-0

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
114	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625830 Client Smpl ID: 2-8-1

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
314	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

Order #: 625831 Client Smpl ID: 2-8-2

Matrix: SOLID

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
114	Perchlorate	6/7		1	ND	0.04	mg/Kg

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 151,609

Order #: 625832 Client Smpl ID: Composite  
 Sample Description 2-1-0 / 2-2-0 / 2-3-0 / 2-4-0

Matrix: SOLID

Test #	Analyte	An. Date	Init	DF	Result	DLR	Units
00.0	Nitrate (as NO <sub>3</sub> )	6/7	RC	1	22.6	5.0	mg/Kg
314	Perchlorate	6/7	L	5.0	7.60	0.04	mg/Kg

Comments:

Order #: 625833 Client Smpl ID: Laboratory Method Blank

Matrix: SOLID

Test #	Analyte	An. Date	Init	DF	Result	DLR	Units
00.0	Nitrate (as NO <sub>3</sub> )				ND	5.0	mg/Kg
314	Perchlorate				ND	0.04	mg/Kg

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials



ASSOCIATED LABORATORIES

806 N. Batavia • Orange, CA 92868  
(714) 771-6900 • Fax: (714) 538-1209

151609

CHAIN OF CUSTODY RECORD

Date 6/6 Page 1 of 3

CLIENT <u>Allwest Remediation</u> ADDRESS <u>1701 N Bawken Way</u> <u>Anaheim Ca 92806</u>		PROJECT MANAGER <u>Richard Scott</u> PHONE NUMBER <u>(714) 237-1201</u> SAMPLERS: (Signature) <u>[Signature]</u>		Lab Use Only: Samples Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> County Seats Intact: Yes <input type="checkbox"/> No <input type="checkbox"/> Sample Ambient <input type="checkbox"/> Cooled <input type="checkbox"/> Frozen <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr. <input type="checkbox"/> Regular <input type="checkbox"/> 48 Hr. <input checked="" type="checkbox"/>			
PROJECT NAME <u>05 8520-E1</u>							

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE			NO OF CONTNRS	SUSP. CONTAM.	TESTS REQUIRED
				WATER	AIR	SOLID			
Z-1-1		6/2/05				X	1		314.0
Z-1-2		6/2/05				X	1		314.0
Z-1-3		6/2/05				X	1		314.0
Z-2-1		6/2/05				X	1		314.0
Z-2-2		6/2/05				X	1		314.0
Z-2-3		6/2/05				X	1		314.0
Z-3-1		6/2/05				X	1		314.0
Z-3-2		6/2/05				X	1		314.0
Z-3-3		6/2/05				X	1		314.0
Z-4-1		6/2/05				X	1		314.0
Z-4-2		6/2/05				X	1		314.0
Z-4-3		6/2/05				X	1		314.0
Z-5-0		6/3/05				X	1		314.0

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date/Time <u>6/6/05 2:42</u>	I hereby authorize the performance of the above indicated work.  <u>[Signature]</u>
Relinquished by: (Signature)	Received by Laboratory for analysis: (Signature)	Date/Time	
Special Instructions:			

DISTRIBUTION: White with report, Yellow to AL, Pink to Courier

JUN-06-2005 12:52

FROM-Associated Laboratories

714-538-1209

T-962 P-008/010 F-776





# ASSOCIATED LABORATORIES

806 N. Batavia • Orange, CA 92868  
(714) 771-6900 • Fax: (714) 538-1209

## CHAIN OF CUSTODY RECORD

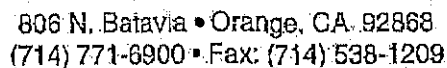
Date 6/6 Page 2 of 3

151609

CLIENT <u>Allwest Remediation</u>		PROJECT MANAGER <u>Richard Scott</u>		Lab Use Only: Samples Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> County Seals Intact Yes <input type="checkbox"/> No <input type="checkbox"/> Sample Ambient <input type="checkbox"/> Coated <input type="checkbox"/> Frozen <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr. <input type="checkbox"/> Regular <input type="checkbox"/> 48 Hr. <input checked="" type="checkbox"/>			
ADDRESS <u>1201 N Barsten Way</u> <u>Anaheim Ca 92806</u>		PHONE NUMBER <u>(714) 237 1201</u>					
PROJECT NAME <u>05 8520-E1</u>		SAMPLERS (Signature) <u>[Signature]</u>					

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE			NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
				WATER	AIR	SOLID			
2-5-1		6/3/05				X	1		3/4.0
2-5-2		6/3/05				X	1		3/4.0
2-6-0		6/3/05				X	1		3/4.0
2-6-1		6/3/05				X	1		3/4.0
2-6-2		6/3/05				X	1		3/4.0
2-7-0		6/3/05				X	1		3/4.0
2-7-1		6/3/05				X	1		3/4.0
2-7-2		6/3/05				X	1		3/4.0
2-8-0		6/3/05				X	1		3/4.0
2-8-1		6/3/05				X	1		3/4.0
2-8-2		6/3/05				X	1		3/4.0

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date/Time <u>6/6/05 2:40</u>	I hereby authorize the performance of the above indicated work.  <u>[Signature]</u>
Relinquished by: (Signature)	Received by Laboratory for analysis: (Signature)	Date/Time	
Special Instructions:			DISTRIBUTION: White with report. Yellow to AL, Pin " " " " " "



151604

DATE 11/1/78 PAGE 3 OF 3

JUN-08-2005 12:52

FROM-Associated Laboratories

714-538-1205

T-362 P. 010/010 F-7/76

[illegible]

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 151,609

Matrix: SOLID

Order #: 626835 Client Smpl ID: 2-1-0

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
0.0	Nitrate (as NO <sub>3</sub> )	6/9	RC	2	67.2	5.0	mg/Kg
14	Perchlorate	6/8	RC	X	4080	0.04	mg/Kg

Comments:

Matrix: SOLID

Order #: 626836 Client Smpl ID: 2-2-0

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
0.0	Nitrate (as NO <sub>3</sub> )			1	21.4	5.0	mg/Kg
14	Perchlorate			50	8.200	0.04	mg/Kg

Comments:

Matrix: SOLID

Order #: 626837 Client Smpl ID: 2-3-0

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
00.0	Nitrate (as NO <sub>3</sub> )	15.1		1	15.1	5.0	mg/Kg
14	Perchlorate			5	0.870	0.04	mg/Kg

Comments:

Matrix: SOLID

Order #: 626838 Client Smpl ID: 2-4-0

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
00.0	Nitrate (as NO <sub>3</sub> )			1	10.4	5.0	mg/Kg
14	Perchlorate			1	54.8	0.04	mg/Kg

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials

# ASSOCIATED LABORATORIES LAB REQUEST SUMMARY

Client ID: 8349

Allwest Remediation Inc.  
Attn: Ivan de Leon  
1201 N. Barsten Way  
Anaheim, CA 92806

Lab Request: 151609

Date Received: 06/06/2005

Project Mgr.: ESB

Phone: 714-237-1201 Fax: 714-237-1202

Submitter: Client

Project: 05 8520-E1

Comments: Added 314 and NO3 to 835-838 per B.S.  
6-8-05 AV

REVIEW	BY	DATE
LOG IN		
DATA	ESB	6-9
QC		
FINAL RPT		

Order No.	626835	Matrix: SOLID	Log Date: 06/08/2005	Due Date: 06/08/2005	<b>!PRIORITY!</b>
Client Smpl. ID:	2-1-0		Sampled: 06/02/2005	Status: Logged	
Method	Profile	Test Name	Analyte	Service Group	
300.0		300.0 Nitrate as NO3 by Ion Chromatography	Nitrate (as NO3)	CHEM	
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM	

Order No.	626836	Matrix: SOLID	Log Date: 06/08/2005	Due Date: 06/08/2005	<b>!PRIORITY!</b>
Client Smpl. ID:	2-2-0		Sampled: 06/02/2005	Status: Logged	
Method	Profile	Test Name	Analyte	Service Group	
300.0		300.0 Nitrate as NO3 by Ion Chromatography	Nitrate (as NO3)	CHEM	
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM	

Order No.	626837	Matrix: SOLID	Log Date: 06/08/2005	Due Date: 06/08/2005	<b>!PRIORITY!</b>
Client Smpl. ID:	2-3-0		Sampled: 06/02/2005	Status: Logged	
Method	Profile	Test Name	Analyte	Service Group	
300.0		300.0 Nitrate as NO3 by Ion Chromatography	Nitrate (as NO3)	CHEM	
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM	

Logged By: ALBERTV

Lab Request 151609 ticket, page 1 of 2

# ASSOCIATED LABORATORIES LAB REQUEST SUMMARY

(Lab Request 151609 ticket continued, page 2 of 2)

Order No.: 626838 Matrix: SOLID Log Date: 06/08/2005 Due Date: 06/08/2005

**!PRIORITY!**

Client Smpl. ID: 2-4-0

Sampled: 06/02/2005

Status: Logged

Service Group

Method	Profile	Test Name	Analyte	Service Group
300.0		300.0 Nitrate as NO3 by Ion Chromatography	Nitrate (as NO3)	CHEM
14		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

Logged By: ALBERTV

Lab Request 151609 ticket, page 2 of 2

**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc. (8349)

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

LAB REQUEST 152095

REPORTED 06/15/2005

RECEIVED 06/15/2005

PROJECT West Hills

SUBMITTER Client

**COMMENTS**

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

**Order No.****Client Sample Identification**

628278

SS-04

628279

SS-05

628280

SS-06

628281

SS-07

628282

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

**NOTE:** Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 628278 Client Sample ID: SS-04  
Matrix: SOLID  
Date Sampled: 06/14/2005  
Time Sampled: 15:10

Analyte	Result	DLR	Units	Date/Analyst
---------	--------	-----	-------	--------------

514 Perchlorate by Ion Chromatography

Perchlorate	ND	0.04	mg/Kg	06/15/05 RC
-------------	----	------	-------	-------------

Order #: 628279 Client Sample ID: SS-05  
Matrix: SOLID  
Date Sampled: 06/14/2005  
Time Sampled: 15:40

Analyte	Result	DLR	Units	Date/Analyst
---------	--------	-----	-------	--------------

514 Perchlorate by Ion Chromatography

Perchlorate	ND	0.04	mg/Kg	06/15/05 RC
-------------	----	------	-------	-------------

Order #: 628280 Client Sample ID: SS-06  
Matrix: SOLID  
Date Sampled: 06/14/2005  
Time Sampled: 16:15

Analyte	Result	DLR	Units	Date/Analyst
---------	--------	-----	-------	--------------

514 Perchlorate by Ion Chromatography

Perchlorate	ND	0.04	mg/Kg	06/15/05 RC
-------------	----	------	-------	-------------

Order #: 628281 Client Sample ID: SS-07  
Matrix: SOLID  
Date Sampled: 06/14/2005  
Time Sampled: 16:30

Analyte	Result	DLR	Units	Date/Analyst
---------	--------	-----	-------	--------------

514 Perchlorate by Ion Chromatography

Perchlorate	ND	0.04	mg/Kg	06/15/05 RC
-------------	----	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 628282

Client Sample ID: Laboratory Method Blank

Matrix: SOLID

Analyte	Result	DLR	Units	Date/Analyst
<u>314 Perchlorate by Ion Chromatography</u>				
Perchlorate	ND	0.04	mg/Kg	06/15/05 RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit





**ASSOCIATED LABORATORIES**  
**QA REPORT FORM**

QC Sample : LR 152095-628281

Matrix: SOIL

Prep. Date: 6/15/05

Analysis Date: 6/15/05

Lab ID#'s in Batch: LR 152095

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

REPORTING UNITS = ug/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CIO4	314.0	ND	500.0	521.0	520.0	104	104	0

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup*

*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%Recovery Limits: 80 - 120 %</i> <i>%RPD Limit: 20 %</i>
--

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

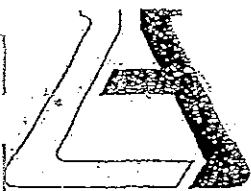
Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
CIO4	314.0	ND	209.0	200	105	85%	115%

*VALUE = Preparation Blank Value; ND = Not-Detected*

*LCS = Lab Control Sample Result*

*TRUE = True Value of LCS*

*L.LIMIT / H.LIMIT = LCS Control Limits*



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868-1225 - 714/771-6900 FAX 714/538-1209

## Cooler Receipt Form

Client: Allwest Remediation Project: West Hills

Date Cooler Received: 6/15/05 Date Cooler Opened: 6/15/05

Was cooler scanned for presence of radioactivity?

Yes/No

If yes was radioactivity results above 25 cpm?

Yes/No

Was a shipper's packing slip attached to the cooler?

Yes/No No Cooler

If the cooler had custody seal(s), were they signed and intact?

Yes/No/Na

Was the cooler packed with: Ice \_\_\_\_\_ Ice Packs \_\_\_\_\_ Bubble wrap \_\_\_\_\_  
Styrofoam \_\_\_\_\_ Paper \_\_\_\_\_ None X Other \_\_\_\_\_

Cooler Temperature: No Cooler \*

\*cooler needs to be received @ 4°C with an acceptable range of 2° - 6 °C

If samples were hand delivered do they meet the temp. criteria, which should be @ 4°C with an acceptable range of 2° - 6 °C?

Yes/No

If no explain: \_\_\_\_\_

Were all samples sealed in plastic bags?

Yes/No

Did all samples arrive intact? If no, indicate below.

Yes/No

Were all samples labeled correctly? (ID's Dates, Times) If no, indicate below.

Yes/No

Can the tests required be ran with the provided containers, If no indicate below.

Yes/No

Was sufficient sample volume sent for all containers?

Yes/No

Were any VOA vials received with head space?

Yes/No/Na

Was the correct preservatives used?

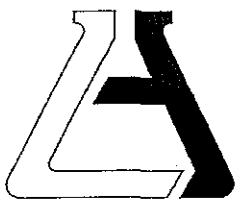
Yes/No/Na

If no, see the pH log for a list of samples containers regarding pH

Any other important information: \_\_\_\_\_

Receiving Department: Paul Felt Date: 6/15/05



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc. (8349)  
ATTN: Richard Scott  
1201 N. Barsten Way  
Anaheim, CA 92806

LAB REQUEST 152390

REPORTED 06/23/2005

RECEIVED 06/21/2005

SUBMITTER Client

## COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
630025	PD-1
630026	PD-2
630027	PD-3
630028	PD-4
630029	PD-5
630030	PD-6
630031	PD-9
630032	PD-10
630033	P-1
630034	P-2
630035	P-3
630036	P-4
630037	P-5
630038	P-6

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

**NOTE** Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING  
Chemical  
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**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc.

(8349)

LAB REQUEST 152390

ATTN: Richard Scott

1201 N. Barsten Way

REPORTED 06/23/2005

Anaheim, CA 92806

RECEIVED 06/21/2005

SUBMITTER Client

**COMMENTS**

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

**Order No.****Client Sample Identification**

630039

P-7

630040

P-8

630041

P-9

630042

P-10

630043

3-9-0

630044

3-10-0

630045

3-11-0

630046

3-12-0

630047

3-13-0

630048

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

**NOTE** Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported

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TESTING &amp; CONSULTING

Chemical  
Microbiological  
Environmental

Order #: 630025

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: PD-1

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>314 Perchlorate by Ion Chromatography</u>					
Perchlorate	51.6	200	8.0	mg/Kg	06/21/05 RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630026

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: PD-2

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>314 Perchlorate by Ion Chromatography</u>					
Perchlorate	48.3	200	8.0	mg/Kg	06/21/05 RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630027

Client: Allwest Remediation Inc

Matrix: SOLID

Client Sample ID: PD-3

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	52.8	200	8.0	mg/Kg	06/21/05 RC
-------------	------	-----	-----	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report





Order #: 630028

Client: Allwest Remediation Inc

Matrix: SOLID

Client Sample ID: PD-4

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>314 Perchlorate by Ion Chromatography</u>					
Perchlorate	42.0	200	8.0	mg/Kg	06/21/05 RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630029

Client: Allwest Remediation Inc

Matrix: SOLID

Client Sample ID: PD-5

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/21/05 RC
-------------	----	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630030

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: PD-6

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	8.40	200	8.0	mg/Kg	06/21/05 RC
-------------	------	-----	-----	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630031

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: PD-9

Date Sampled: 06/20/2005

Sample Description: Plant Debris

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/21/05 RC
-------------	----	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630032  
Matrix: SOLID  
Date Sampled: 06/20/2005  
Time Sampled:  
Sampled By:

Client: Allwest Remediation Inc  
Client Sample ID: PD-10  
Sample Description: Plant Debris

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/22/05 RC
-------------	----	---	------	-------	-------------

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 630033

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: P-1

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	33.5	200	8.0	mg/Kg	06/21/05 RC
-------------	------	-----	-----	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630034

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: P-2

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	43.9	200	8.0	mg/Kg	06/21/05 RC
-------------	------	-----	-----	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630035

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: P-3

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	32.2	200	8.0	mg/Kg	06/21/05 RC
-------------	------	-----	-----	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report





Order #: 630036  
Matrix: SOLID  
Date Sampled: 06/20/2005  
Time Sampled:  
Sampled By:

Client: Allwest Remediation Inc.  
Client Sample ID: P-4  
Sample Description: Plant

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	57.7	200	80	mg/Kg	06/21/05 RC
-------------	------	-----	----	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 630037

Matrix: SOLID

Date Sampled: 06/20/2005

Time Sampled:

Sampled By:

Client: Allwest Remediation Inc.

Client Sample ID: P-5

Sample Description: Plant

Analyte

Result

DF

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

0.24

1

0.04

mg/Kg

06/21/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630038  
Matrix: SOLID  
Date Sampled: 06/20/2005  
Time Sampled:  
Sampled By:

Client: Allwest Remediation Inc.  
Client Sample ID: P-6  
Sample Description: Plant

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	0.18	1	0.04	mg/Kg	06/21/05 RC
-------------	------	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 630039

Client: Allwest Remediation Inc

Matrix: SOLID

Client Sample ID: P-7

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>314 Perchlorate by Ion Chromatography</u>					
Perchlorate	0.31	1	0.04	mg/Kg	06/22/05 RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630040

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: P-8

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	0.26	1	0.04	mg/Kg	06/22/05 RC
-------------	------	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630041

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: P-9

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>314 Perchlorate by Ion Chromatography</u>					
Perchlorate	0.08	1	0.04	mg/Kg	06/22/05 RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630042

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: P-10

Date Sampled: 06/20/2005

Sample Description: Plant

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

314 Perchlorate by Ion Chromatography

Perchlorate	0.05	1	0.04	mg/Kg	06/22/05 RC
-------------	------	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630043

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: 3-9-0

Date Sampled: 06/20/2005

Sample Description: Soil

Time Sampled: 15:15

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	44.8	1	5.0	mg/Kg	06/21/05 RC
------------------	------	---	-----	-------	-------------

14 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/22/05 RC
-------------	----	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report





Order #: 630044

Client: Allwest Remediation Inc

Matrix: SOLID

Client Sample ID: 3-10-0

Date Sampled: 06/20/2005

Sample Description: Soil

Time Sampled: 14:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	16.8	1	5.0	mg/Kg	06/21/05	RC
------------------	------	---	-----	-------	----------	----

14 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/22/05	RC
-------------	----	---	------	-------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630045

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: 3-11-0

Date Sampled: 06/20/2005

Sample Description: Soil

Time Sampled: 12:15

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	47.1	1	5.0	mg/Kg	06/21/05 RC
------------------	------	---	-----	-------	-------------

314 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/22/05 RC
-------------	----	---	------	-------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630046

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: 3-12-0

Date Sampled: 06/20/2005

Sample Description: Soil

Time Sampled: 13:15

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	42.8	1	5.0	mg/Kg	06/21/05	RC
------------------	------	---	-----	-------	----------	----

14 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/22/05	RC
-------------	----	---	------	-------	----------	----

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630047

Matrix: SOLID

Date Sampled: 06/20/2005

Time Sampled: 13:30

Sampled By:

Client: Allwest Remediation Inc

Client Sample ID: 3-13-0

Sample Description: Soil

Analyte

Result

DF

DLR

Units

Date/Analyst

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

35.6

1

5.0

mg/Kg

06/22/05

RC

14 Perchlorate by Ion Chromatography

Perchlorate

ND

1

0.04

mg/Kg

06/22/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order #: 630048

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: Laboratory Method Blank

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	ND	1	5.0	mg/Kg	06/21/05	RC
------------------	----	---	-----	-------	----------	----

14 Perchlorate by Ion Chromatography

Perchlorate	ND	1	0.04	mg/Kg	06/22/05	RC
-------------	----	---	------	-------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

**ASSOCIATED LABORATORIES**

Analytical Results Report



# ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample : LR 152390-630032

Matrix: SOIL

Prep. Date: 6/22/05

Analysis Date: 6/22/05

Lab ID#'s in Batch: LR 152390-630032

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = ug/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CIO4	314.0	ND	2000.0	2050.0	2020.0	103	101	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%Recovery Limits: 80 - 120 % %RPD Limit: 20 %
--

## PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
CIO4	314.0	ND	211.0	200	106	85%	115%

VALUE = Preparation Blank Value, ND = Not-Detected

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L LIMIT / H LIMIT = LCS Control Limits

# ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample : LR 152390-630042

Matrix: SOIL

Prep. Date: 6/22/05

Analysis Date: 6/22/05

Lab ID#'s in Batch: LR 152390-630037 TO 630042

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = ug/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CIO4	314.0	50.0	5000.0	4800.0	4750.0	95	94	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup  
 %REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%Recovery Limits: 80 - 120 % %RPD Limit: 20 %
--

## PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
CIO4	314.0	ND	211.0	200	106	85%	115%

VALUE = Preparation Blank Value; ND = Not-Detected

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L LIMIT / H LIMIT = LCS Control Limits

# ALLWEST REMEDIATION Inc.

1201 NORTH BARSTEN WAY  
ANAHEIM, CA 92806

PHONE (714) 237-1201  
FAX (714) 237-1202

June 21, 2005  
Project No. 05-8520 EI

Danielle Roberts  
Associated Laboratories  
806 North Batavia  
Orange, CA 92868

SUBJECT: FRESH LEAVES/DRIED LEAVES

Dear Danielle:

Please analyze these leaves for perchlorate residue.

- 1) Weigh bag.
- 2) Extract contents (do not crush leaves, dried leaves may require additional extraction time)
- 3) Rinse bag
- 4) Analyze for perchlorate

Please save the extracts. If you have a different idea how to extract the leaves please don't hesitate to call us at (714) 237-1201.

Sincerely,  
ALLWEST REMEDIATION, INC.



Richard Scott  
Operations Manager





**ASSOCIATED LABORATORIES**806 N. Batavia • Orange, CA 92868  
(714) 771-6900 • Fax: (714) 538-1209**CHAIN OF CUSTODY RECORD**Date 06/21/05 Page 2 of 3

152390

CLIENT Allwest RemediationADDRESS 714-237-1201

PROJECT NAME

PROJECT MANAGER R. Sult

PHONE NUMBER

SAMPLERS: (Signature) [Signature]**Lab Use Only:**Samples Intact Yes ☒ No ☐  
County Seals Intact Yes ☐ No ☒ N/A  
Sample Ambient ☐ Cooled ☒ Frozen ☐  
Same Day ☒ 24 Hr. ☒  
Regular ☒ 48 Hr. ☐

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE			NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED	
				WATER	AIR	SOLID				
P-1	Plant	6/20/05				X	1	Rich	314.0	perchlorate
P-2	"	"				X	1	"	"	
P-3	"	"				X	1	"	"	
P-4	"	"				X	1	"	"	
P-5	"	"				X	1	"	"	
P-6	"	"				X	1	"	"	
P-7	"	"				X	1	"	"	
P-8	"	"				X	1	"	"	
P-9	"	"				X	1	"	"	
P-10	"	"				X	1	"	"	

Relinquished by: (Signature) [Signature]Received by: (Signature) Juan MontoyaDate/Time 06/21/05 10:30

I hereby authorize the performance of the above indicated work.

Relinquished by: (Signature)

Received by Laboratory for analysis: (Signature)

Date/Time

Special Instructions:

See ATTACHED - Discuss with DanielDISTRIBUTION: White with report. Yellow to AL, Pink to ier



CHAIN OF CUSTODY RECORD

52390

Lab Use Only:  
 Samples Intact Yes ☒ No ☐  
 County Seals Intact Yes ☐ No ☐  
 Sample Ambient ☐ Cooled ☒ Frozen ☐  
 Same Day ☐ 24 Hr. ☒  
 Regular ☐ 48 Hr. ☐

Date/Time 10:30  
06/21/03  
Date/Time

*[Signature]*

DISTRIBUTION: White with report. Yellow to AL,



**ASSOCIATED LABORATORIES**  
806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc.

(8349)

LAB REQUEST 153720

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

REPORTED 07/18/2005

RECEIVED 07/15/2005

PROJECT Sterling Site

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.Client Sample Identification

636528

4-14-0

636529

4-15-0

636530

4-16-0

636531

4-21-0

636532

SS-8

636533

SS-9

636534

SS-10

636535

SS-11

636536

SS-12

636537

SS-13

636538

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves

TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order # 636528 Client: Allwest Remediation Inc  
Matrix: SOLID Client Sample ID: 4-14-0  
Date Sampled: 07/11/2005  
Time Sampled:  
Sampled By:

Analyte Result DF DLR Units Date/Analyst

1 Perchlorate by Ion Chromatography

2 10B ICP CAM Metals Only (W/S/W)

Antimony	2.49	1	3.0	mg/Kg	07/18/05	KN
Arsenic	5.53	1	1.0	mg/Kg	07/18/05	KN
Barium	75.7	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.924	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.383	1	0.5	mg/Kg	07/18/05	KN
Chromium	17.9	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.95	1	0.5	mg/Kg	07/18/05	KN
Copper	5.36	1	1.0	mg/Kg	07/18/05	KN
Lead	14.0	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	12.7	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	34.2	1	0.5	mg/Kg	07/18/05	KN
Zinc	52.2	1	5.0	mg/Kg	07/18/05	KN

74/1A Mercury in Solid/Wipe

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

ASSOCIATED LABORATORIES

Analytical Results Report



Order # 636529

Client: Allwest Remediation Inc

Matrix: SOLID

Client Sample ID: 4-15-0

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

**Analyte****Result****DF****DLR****Units****Date/Analyst****3. Perchlorate by Ion Chromatography****6. 10B ICP CAM Metals Only (W/S/W)**

Antimony	2.50	1	3.0	mg/Kg	07/18/05	KN
Arsenic	4.53	1	1.0	mg/Kg	07/18/05	KN
Barium	71.4	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.844	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.293	1	0.5	mg/Kg	07/18/05	KN
Chromium	17.1	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.78	1	0.5	mg/Kg	07/18/05	KN
Copper	5.24	1	1.0	mg/Kg	07/18/05	KN
Lead	13.3	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	12.0	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	32.0	1	0.5	mg/Kg	07/18/05	KN
Zinc	48.2	1	5.0	mg/Kg	07/18/05	KN

**7471A Mercury in Solid/Wipe**

IR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order # 636530

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: 4-16-0

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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4 Perchlorate by Ion Chromatography10B ICP CAM Metals Only (W/S/W)

Antimony	2.72	1	3.0	mg/Kg	07/18/05	KN
Arsenic	4.97	1	1.0	mg/Kg	07/18/05	KN
Barium	76.0	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.861	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.305	1	0.5	mg/Kg	07/18/05	KN
Chromium	18.6	1	1.0	mg/Kg	07/18/05	KN
Cobalt	6.12	1	0.5	mg/Kg	07/18/05	KN
Copper	5.27	1	1.0	mg/Kg	07/18/05	KN
Lead	14.4	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	12.6	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	34.1	1	0.5	mg/Kg	07/18/05	KN
Zinc	51.3	1	5.0	mg/Kg	07/18/05	KN

74/1A Mercury in Solid/Wipe

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

ASSOCIATED LABORATORIES

Analytical Results Report



Order # 636531

Client: Allwest Remediation Inc.

Matrix: -SOLID

Client Sample ID: 4-21-0

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

**Analyte****Result****DF****DLR****Units****Date/Analyst****7471A Perchlorate by Ion Chromatography****10B ICP CAM Metals Only (W/S/W)**

Antimony	2.32	1	3.0	mg/Kg	07/18/05	KN
Arsenic	4.97	1	1.0	mg/Kg	07/18/05	KN
Barium	70.2	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.828	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.317	1	0.5	mg/Kg	07/18/05	KN
Chromium	17.3	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.83	1	0.5	mg/Kg	07/18/05	KN
Copper	5.03	1	1.0	mg/Kg	07/18/05	KN
Lead	13.9	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	11.9	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	32.2	1	0.5	mg/Kg	07/18/05	KN
Zinc	48.1	1	5.0	mg/Kg	07/18/05	KN

**7471A Mercury in Solid/Wipe**

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report





Order # 636532

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: SS-8

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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## 3 Perchlorate by Ion Chromatography

## 5 10B ICP CAM Metals Only (W/S/W)

Antimony	1.78	1	3.0	mg/Kg	07/18/05	KN
Arsenic	5.03	1	1.0	mg/Kg	07/18/05	KN
Barium	74.2	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.870	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.294	1	0.5	mg/Kg	07/18/05	KN
Chromium	17.9	1	1.0	mg/Kg	07/18/05	KN
Cobalt	6.05	1	0.5	mg/Kg	07/18/05	KN
Copper	5.42	1	1.0	mg/Kg	07/18/05	KN
Lead	14.3	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	12.5	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	32.4	1	0.5	mg/Kg	07/18/05	KN
Zinc	49.9	1	5.0	mg/Kg	07/18/05	KN

## 14 1A Mercury in Solid/Wipe

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

ASSOCIATED LABORATORIES

Analytical Results Report



Order # 636533

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: SS-9

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

**Analyte****Result****DF****DLR****Units****Date/Analyst****14 Perchlorate by Ion Chromatography****10B ICP CAM Metals Only (W/S/W)**

Antimony	2.16	1	3.0	mg/Kg	07/18/05	KN
Arsenic	5.02	1	1.0	mg/Kg	07/18/05	KN
Barium	76.4	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.876	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.329	1	0.5	mg/Kg	07/18/05	KN
Chromium	18.5	1	1.0	mg/Kg	07/18/05	KN
Cobalt	6.25	1	0.5	mg/Kg	07/18/05	KN
Copper	6.09	1	1.0	mg/Kg	07/18/05	KN
Lead	14.5	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	13.1	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	36.1	1	0.5	mg/Kg	07/18/05	KN
Zinc	54.7	1	5.0	mg/Kg	07/18/05	KN

**7471A Mercury in Solid/Wipe**

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order # 636534

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: SS-10

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
<u>Perchlorate by Ion Chromatography</u>					
<u>10B ICP CAM Metals Only (W/S/W)</u>					

Antimony	2.15	1	3.0	mg/Kg	07/18/05	KN
Arsenic	5.05	1	1.0	mg/Kg	07/18/05	KN
Barium	65.6	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.798	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.285	1	0.5	mg/Kg	07/18/05	KN
Chromium	16.3	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.57	1	0.5	mg/Kg	07/18/05	KN
Copper	4.63	1	1.0	mg/Kg	07/18/05	KN
Lead	13.8	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	11.6	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	27.5	1	0.5	mg/Kg	07/18/05	KN
Zinc	47.2	1	5.0	mg/Kg	07/18/05	KN

7. 1A Mercury in Solid/Wipe

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order # 636535

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: SS-11

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

**Analyte****Result****DF****DLR****Units****Date/Analyst****3.4 Perchlorate by Ion Chromatography****6.10B ICP CAM Metals Only (W/S/W)**

Antimony	2.34	1	3.0	mg/Kg	07/18/05	KN
Arsenic	4.70	1	1.0	mg/Kg	07/18/05	KN
Barium	70.8	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.791	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.304	1	0.5	mg/Kg	07/18/05	KN
Chromium	16.6	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.62	1	0.5	mg/Kg	07/18/05	KN
Copper	5.28	1	1.0	mg/Kg	07/18/05	KN
Lead	14.2	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	11.9	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	30.8	1	0.5	mg/Kg	07/18/05	KN
Zinc	48.0	1	5.0	mg/Kg	07/18/05	KN

**7471A Mercury in Solid/Wipe**

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order # 636536

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: SS-12

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
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Perchlorate by Ion Chromatography60B ICP CAM Metals Only (W/S/W)

Antimony	1.74	1	3.0	mg/Kg	07/18/05	KN
Arsenic	4.95	1	1.0	mg/Kg	07/18/05	KN
Barium	70.9	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.773	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.292	1	0.5	mg/Kg	07/18/05	KN
Chromium	16.7	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.58	1	0.5	mg/Kg	07/18/05	KN
Copper	5.36	1	1.0	mg/Kg	07/18/05	KN
Lead	13.3	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	12.0	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	31.2	1	0.5	mg/Kg	07/18/05	KN
Zinc	47.7	1	5.0	mg/Kg	07/18/05	KN

1A Mercury in Solid/Wipe

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

ASSOCIATED LABORATORIES

Analytical Results Report



Order # 636537

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: SS-13

Date Sampled: 07/11/2005

Time Sampled:

Sampled By:

**Analyte****Result****DF****DLR****Units****Date/Analyst****3 Perchlorate by Ion Chromatography****6 0B ICP CAM Metals Only (W/S/W)**

Antimony	2.16	1	3.0	mg/Kg	07/18/05	KN
Arsenic	4.79	1	1.0	mg/Kg	07/18/05	KN
Barium	71.4	1	1.0	mg/Kg	07/18/05	KN
Beryllium	0.770	1	0.5	mg/Kg	07/18/05	KN
Cadmium	0.331	1	0.5	mg/Kg	07/18/05	KN
Chromium	17.7	1	1.0	mg/Kg	07/18/05	KN
Cobalt	5.75	1	0.5	mg/Kg	07/18/05	KN
Copper	5.67	1	1.0	mg/Kg	07/18/05	KN
Lead	13.4	1	0.5	mg/Kg	07/18/05	KN
Molybdenum	ND	1	1.0	mg/Kg	07/18/05	KN
Nickel	12.5	1	1.5	mg/Kg	07/18/05	KN
Selenium	ND	1	1.0	mg/Kg	07/18/05	KN
Silver	ND	1	0.5	mg/Kg	07/18/05	KN
Thallium	ND	1	1.0	mg/Kg	07/18/05	KN
Vanadium	32.3	1	0.5	mg/Kg	07/18/05	KN
Zinc	49.7	1	5.0	mg/Kg	07/18/05	KN

**7471A Mercury in Solid/Wipe**

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report



Order # 636538

Client: Allwest Remediation Inc.

Matrix: SOLID

Client Sample ID: Laboratory Method Blank

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

Perchlorate by Ion Chromatography10B ICP CAM Metals Only (W/S/W)7471A Mercury in Solid/Wipe

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

**ASSOCIATED LABORATORIES**

Analytical Results Report



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc.

(8349)

LAB REQUEST 152390

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

REPORTED 06/23/2005

RECEIVED 06/21/2005

SUBMITTER Client


COMMENTS Added Strontium to order #630028, 036 on 6/27/05

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
630025	PD-1
630026	PD-2
630027	PD-3
630028	PD-4
630029	PD-5
630030	PD-6
630031	PD-9
630032	PD-10
630033	P-1
630034	P-2
630035	P-3
630036	P-4
630037	P-5
630038	P-6
630039	P-7

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental





**ASSOCIATED LABORATORIES**  
806 North Batavia - Orange, California 92868 - 714/771-6900

**FAX 714/538-1209**

**CLIENT** Allwest Remediation Inc. (8349)

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

**LAB REQUEST** 152390

**REPORTED** 06/23/2005

**RECEIVED** 06/21/2005

**SUBMITTER** Client

**COMMENTS** Added Strontium to order #630028, 036 on 6/27/05

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

**Order No.**

630040

630041

630042

630043

630044

630045

630046

630047

630048

**Client Sample Identification**

P-8

P-9

P-10

3-9-0

3-10-0

3-11-0

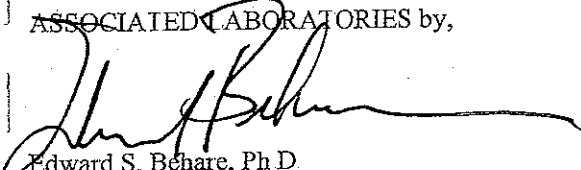
3-12-0

3-13-0

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

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**TESTING & CONSULTING**  
Chemical  
Microbiological  
Environmental

Order #: 630025

Client Sample ID: PD-1

Matrix: SOLID

Sample Description: Plant Debris

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

51.6

8.0

mg/Kg

06/21/05

RC

Order #: 630026

Client Sample ID: PD-2

Matrix: SOLID

Sample Description: Plant Debris

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

48.3

8.0

mg/Kg

06/21/05

RC

Order #: 630027

Client Sample ID: PD-3

Matrix: SOLID

Sample Description: Plant Debris

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

52.8

8.0

mg/Kg

06/21/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 630028  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: PD-4  
Sample Description: Plant Debris

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate	42.0	8.0	mg/Kg	06/21/05	RC
-------------	------	-----	-------	----------	----

6910B ICP Metals - Solid/Liquid/Wipe

Strontium	11.0	50.0	mg/Kg	06/29/05	KN
-----------	------	------	-------	----------	----

Order #: 630029  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: PD-5  
Sample Description: Plant Debris

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate	ND	0.04	mg/Kg	06/21/05	RC
-------------	----	------	-------	----------	----

Order #: 630030  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: PD-6  
Sample Description: Plant Debris

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate	8.40	8.0	mg/Kg	06/21/05	RC
-------------	------	-----	-------	----------	----

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 630031

Client Sample ID: PD-9

Matrix: SOLID

Sample Description: Plant Debris

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/21/05

RC

Order #: 630032

Client Sample ID: PD-10

Matrix: SOLID

Sample Description: Plant Debris

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

Order #: 630033

Client Sample ID: P-1

Matrix: SOLID

Sample Description: Plant

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

33.5

8.0

mg/Kg

06/21/05

RC

Order #: 630034

Client Sample ID: P-2

Matrix: SOLID

Sample Description: Plant

Date Sampled: 06/20/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

43.9

8.0

mg/Kg

06/21/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 630035  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: P-3  
Sample Description: Plant

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate	32.2	8.0	mg/Kg	06/21/05	RC
-------------	------	-----	-------	----------	----

Order #: 630036  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: P-4  
Sample Description: Plant

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate	57.7	8.0	mg/Kg	06/21/05	RC
-------------	------	-----	-------	----------	----

6010B ICP Metals - Solid/Liquid/Wipe

Strontium	4.41	50.0	mg/Kg	06/29/05	KN
-----------	------	------	-------	----------	----

Order #: 630037  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: P-5  
Sample Description: Plant

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate	0.24	0.04	mg/Kg	06/21/05	RC
-------------	------	------	-------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 630038

Client Sample ID: P-6

Matrix: SOLID

Sample Description: Plant

Date Sampled: 06/20/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

0.18

0.04

mg/Kg

06/21/05

RC

Order #: 630039

Client Sample ID: P-7

Matrix: SOLID

Sample Description: Plant

Date Sampled: 06/20/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

0.31

0.04

mg/Kg

06/22/05

RC

Order #: 630040

Client Sample ID: P-8

Matrix: SOLID

Sample Description: Plant

Date Sampled: 06/20/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

0.26

0.04

mg/Kg

06/22/05

RC

Order #: 630041

Client Sample ID: P-9

Matrix: SOLID

Sample Description: Plant

Date Sampled: 06/20/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

0.08

0.04

mg/Kg

06/22/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 630042  
Matrix: SOLID  
Date Sampled: 06/20/2005

Client Sample ID: P-10  
Sample Description: Plant

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

0.05

0.04

mg/Kg

06/22/05

RC

Order #: 630043  
Matrix: SOLID  
Date Sampled: 06/20/2005  
Time Sampled: 15:15

Client Sample ID: 3-9-0  
Sample Description: Soil

Analyte

Result

DLR

Units

Date/Analyst

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

44.8

5.0

mg/Kg

06/21/05

RC

214 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

Order #: 630044  
Matrix: SOLID  
Date Sampled: 06/20/2005  
Time Sampled: 14:00

Client Sample ID: 3-10-0  
Sample Description: Soil

Analyte

Result

DLR

Units

Date/Analyst

300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

16.8

5.0

mg/Kg

06/21/05

RC

214 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 630045

Client Sample ID: 3-11-0

Matrix: SOLID

Sample Description: Soil

Date Sampled: 06/20/2005

Time Sampled: 12:15

## Analyte

Result

DLR

Units

Date/Analyst

## 300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

47.1

5.0

mg/Kg

06/21/05

RC

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

Order #: 630046

Client Sample ID: 3-12-0

Matrix: SOLID

Sample Description: Soil

Date Sampled: 06/20/2005

Time Sampled: 13:15

## Analyte

Result

DLR

Units

Date/Analyst

## 300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

42.8

5.0

mg/Kg

06/21/05

RC

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

Order #: 630047

Client Sample ID: 3-13-0

Matrix: SOLID

Sample Description: Soil

Date Sampled: 06/20/2005

Time Sampled: 13:30

## Analyte

Result

DLR

Units

Date/Analyst

## 300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

35.6

5.0

mg/Kg

06/22/05

RC

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit





Order #: 630048

Client Sample ID: Laboratory Method Blank

Matrix: SOLID

## Analyte

Result

DLR

Units

Date/Analyst

500.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

ND

5.0

mg/Kg

06/21/05

RC

14 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/22/05

RC

10B ICP Metals - Solid/Liquid/Wipe

Strontium

ND

5.00

mg/Kg

06/29/05

KN

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**ASSOCIATED LABORATORIES  
QA REPORT FORM - METHOD 6010**

QC Sample: 151609-625835

H# 062805 SO8

Matrix: SOLID

Prep. Date: June 28, 2005

Analysis Date: June 29, 2005

Lab ID#'s in Batch: LR 151609, 152390

Reporting Units = mg/Kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	% RPD
Sr	68	920	1,060	1,000	108	101	6

\* = Outside QC limits, due to matrix Interference  
If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 75 -125 RPD LIMITS = 20
---

**LCS RECOVERY / METHOD BLANK**

Test	LCS True Value	LCS Result	LCS %Rec	QC Limit %REC	MB Limit	MB Result
Sr	1,000	1,060	106	80-120	0.01	ND



# ASSOCIATED LABORATORIES

DATE OF REQUEST: 6/27/05					CLIENT NAME: Al West.				
LAB #(s): 151609 & 152390					ORDER #(s):				
EDIT: _____ ADDITIONAL ANALYSIS: <input checked="" type="checkbox"/>					REGULAR TAT: _____ RUSH: <input checked="" type="checkbox"/>				
MICRO	CHEM	GASC	ICP/AA	PEST/ SVOA	VOA	BIO	TOC/ RAD	PREP	OUT
<div>PRIORITY</div> <div>LR# 151609 - OR# 835 OR# 825, OR 836</div> <div>RESULTS DUE 6/28</div>									
LR# 152390 OR# 028 OR# 036									
please run for Strontium									
Sr by 6010									

REQUESTOR: KW

**ALLWEST REMEDIATION Inc.**1201 NORTH BARSTEN WAY  
ANAHEIM, CA 92806PHONE (714) 237-1201  
FAX (714) 237-1202

05 8520-EI

Allwest Project Number

**FACSIMILE COVER SHEET**

Please Deliver the Following Fax To:

Company:	Contact:	Fax Number:
Associated Laboratories	Danielle	(714) 771-9933

From:	Justin Williams	Date:	June 24, 2005
-------	-----------------	-------	---------------

Subject:	Strontium
----------	-----------

Comments:	<p>Danielle,</p> <p>Please run samples 2-1-0, 2-2-0, and 2-6-2 as well as the P-4, PD-4 extracts for strontium. We will need these rushed.</p> <p>Please call me with any questions.</p> <p>Thank you,</p> <p>Justin Williams</p> <p>LR # 151609</p> <p>626835 : 6010 Sr</p> <p>626836</p> <p>625825 : 6010 Sr</p> <p>LR # 152390</p> <p>630028 : 6010 Sr</p> <p>630036 : 6010 Sr</p>
-----------	---

Total Number of Pages: 1 Including Cover PageOriginal to Follow by Mail: Yes      No X

If you do not receive all the pages, please call (714) 237-1201



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc

(8349)

LAB REQUEST 151609

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

REPORTED 06/10/2005

RECEIVED 06/06/2005

PROJECT 05 8520-E1

SUBMITTER Client

COMMENTS Added Strontium to order #625825, 835, 836 on 6/27/05.

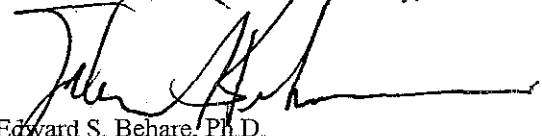
\* Insufficient sample

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
625808	2-1-1
625809	2-1-2
625810	2-1-3
625811	2-2-1
625812	2-2-2
625813	2-2-3
625814	2-3-1
625815	2-3-2
625816	2-3-3
625817	2-4-1
625818	2-4-2

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental



# ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc. (8349)

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

LAB REQUEST 151609

REPORTED 06/10/2005

RECEIVED 06/06/2005

PROJECT 05 8520-E1

SUBMITTER Client

COMMENTS Added Strontium to order #625825, 835, 836 on 6/27/05.


\* Insufficient sample.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
625819	2-4-3
625820	2-5-0
625821	2-5-1
625822	2-5-2
625823	2-6-0
625824	2-6-1
625825	2-6-2
625826	2-7-0
625827	2-7-1
625828	2-7-2
625829	2-8-0
625830	2-8-1

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

  
Edward S. Behare, Ph.D.  
Vice President

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc.

(8349)

LAB REQUEST 151609

ATTN: Richard Scott

1201 N. Barsten Way

Anaheim, CA 92806

REPORTED 06/10/2005

RECEIVED 06/06/2005

PROJECT 05 8520-E1

SUBMITTER Client

COMMENTS Added Strontium to order #625825, 835, 836 on 6/27/05.

\* Insufficient sample.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.Client Sample Identification

625831

2-8-2

625832

Composite

625833

Laboratory Method Blank

626835

2-1-0

626836

2-2-0

626837

2-3-0

626838

2-4-0

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph D.  
Vice President

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 625808

Client Sample ID: 2-1-1

Matrix: SOLID

Date Sampled: 06/03/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

0.148

0.04

mg/Kg

06/06/05

RC

Order #: 625809

Client Sample ID: 2-1-2

Matrix: SOLID

Date Sampled: 06/03/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

0.044

0.04

mg/Kg

06/06/05

RC

Order #: 625810

Client Sample ID: 2-1-3

Matrix: SOLID

Date Sampled: 06/03/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625811

Client Sample ID: 2-2-1

Matrix: SOLID

Date Sampled: 06/03/2005

Analyte

Result

DLR

Units

Date/Analyst

314 Perchlorate by Ion Chromatography

Perchlorate

0.173

0.04

mg/Kg

06/07/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit





Order #: 625812

Client Sample ID: 2-2-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 3.4 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625813

Client Sample ID: 2-2-3

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 3.4 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/06/05

RC

Order #: 625814

Client Sample ID: 2-3-1

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 3.1 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/06/05

RC

Order #: 625815

Client Sample ID: 2-3-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 3.1 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/06/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 625816

Client Sample ID: 2-3-3

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/06/05

RC

Order #: 625817

Client Sample ID: 2-4-1

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/06/05

RC

Order #: 625818

Client Sample ID: 2-4-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625819

Client Sample ID: 2-4-3

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 625820

Client Sample ID: 2-5-0

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 14 Perchlorate by Ion Chromatography

Perchlorate

0.052

0.04

mg/Kg

06/07/05

RC

Order #: 625821

Client Sample ID: 2-5-1

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 14 Perchlorate by Ion Chromatography

Perchlorate

0.244

0.04

mg/Kg

06/07/05

RC

Order #: 625822

Client Sample ID: 2-5-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 4 Perchlorate by Ion Chromatography

Perchlorate

0.060

0.04

mg/Kg

06/07/05

RC

Order #: 625823

Client Sample ID: 2-6-0

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 4 Perchlorate by Ion Chromatography

Perchlorate

0.346

0.08

mg/Kg

06/07/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 625824

Client Sample ID: 2-6-1

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

0.082

0.04

mg/Kg

06/07/05

RC

Order #: 625825

Client Sample ID: 2-6-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

99.5

20.0

mg/Kg

06/07/05

RC

## 6010B ICP Metals - Solid/Liquid/Wipe

Strontium

32.7

50.0

mg/Kg

06/29/05

KN

Order #: 625826

Client Sample ID: 2-7-0

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 625827

Client Sample ID: 2-7-1

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

## Result

## DLR

## Units

## Date/Analyst

## 4 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625828

Client Sample ID: 2-7-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

## Result

## DLR

## Units

## Date/Analyst

## 4 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625829

Client Sample ID: 2-8-0

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

## Result

## DLR

## Units

## Date/Analyst

## 4 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625830

Client Sample ID: 2-8-1

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

## Result

## DLR

## Units

## Date/Analyst

## 3 1 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 625831

Client Sample ID: 2-8-2

Matrix: SOLID

Date Sampled: 06/03/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

Order #: 625832

Client Sample ID: Composite

Matrix: SOLID

Sample Description: 2-1-0 / 2-2-0 / 2-3-0 / 2-4-0

Date Sampled: 06/02/2005

## Analyte

Result

DLR

Units

Date/Analyst

## 300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

22.6

5.0

mg/Kg

06/07/05

RC

## 314 Perchlorate by Ion Chromatography

Perchlorate

7.60

2.0

mg/Kg

06/07/05

RC

Order #: 625833

Client Sample ID: Laboratory Method Blank

Matrix: SOLID

## Analyte

Result

DLR

Units

Date/Analyst

## 300.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)

ND

5.0

mg/Kg

06/07/05

RC

## 314 Perchlorate by Ion Chromatography

Perchlorate

ND

0.04

mg/Kg

06/07/05

RC

## 6010B ICP Metals - Solid/Liquid/Wipe

Strontium

ND

5.00

mg/Kg

06/29/05

KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 626835

Client Sample ID: 2-1-0

Matrix: SOLID

Date Sampled: 06/02/2005

Analyte	Result	DLR	Units	Date/Analyst
---------	--------	-----	-------	--------------

0.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	67.2	10.0	mg/Kg	06/09/05 RC
------------------	------	------	-------	-------------

14 Perchlorate by Ion Chromatography

Perchlorate	4.08	1.0	mg/Kg	06/08/05 RC
-------------	------	-----	-------	-------------

10B ICP Metals - Solid/Liquid/Wipe

Strontium	68.0	50.0	mg/Kg	06/29/05 KN
-----------	------	------	-------	-------------

Order #: 626836

Client Sample ID: 2-2-0

Matrix: SOLID

Date Sampled: 06/02/2005

Analyte	Result	DLR	Units	Date/Analyst
---------	--------	-----	-------	--------------

0.0 Nitrate as NO3 by Ion Chromatography

Nitrate (as NO3)	21.4	5.0	mg/Kg	06/09/05 RC
------------------	------	-----	-------	-------------

4 Perchlorate by Ion Chromatography

Perchlorate	8.70	2.0	mg/Kg	06/08/05 RC
-------------	------	-----	-------	-------------

6010B ICP Metals - Solid/Liquid/Wipe

Strontium	*	5.00	mg/Kg	
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LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 626837

Client Sample ID: 2-3-0

Matrix: SOLID

Date Sampled: 06/02/2005

**Analyte****Result****DLR****Units****Date/Analyst****300.0 Nitrate as NO3 by Ion Chromatography**

Nitrate (as NO3)

15.1

5.0

mg/Kg

06/09/05

RC

**314 Perchlorate by Ion Chromatography**

Perchlorate

0.87

0.2

mg/Kg

06/08/05

RC

Order #: 626838

Client Sample ID: 2-4-0

Matrix: SOLID

Date Sampled: 06/02/2005

**Analyte****Result****DLR****Units****Date/Analyst****300.0 Nitrate as NO3 by Ion Chromatography**

Nitrate (as NO3)

10.4

5.0

mg/Kg

06/09/05

RC

**314 Perchlorate by Ion Chromatography**

Perchlorate

0.055

0.04

mg/Kg

06/08/05

RC

LR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit





**ALLWEST REMEDIATION Inc.**1201 NORTH BARSTEN WAY  
ANAHEIM, CA 92806PHONE (714) 237-1201  
FAX (714) 237-1202

05 8520-EI

Allwest Project Number

**FACSIMILE COVER SHEET**

Please Deliver the Following Fax To:

Company:	Contact:	Fax Number:
Associated Laboratories	Danielle	(714) 771-9933

From:	Justin Williams	Date:	June 24, 2005
-------	-----------------	-------	---------------

Subject:	Strontium
----------	-----------

Comments:	<p>Danielle,</p> <p>Please run samples 2-1-0, 2-2-0, and 2-6-2 as well as the P-4, PD-4 extracts for strontium. We will need these rushed.</p> <p>Please call me with any questions.</p> <p>Thank you,</p> <p>Justin Williams</p> <p>LR #151609</p> <p>626835 : 6010 Sr</p> <p>626836</p> <p>625825 : 6010 Sr</p> <p>LR #152396</p> <p>630028 : 6010 Sr</p> <p>630036 : 6010 Sr</p>
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Total Number of Pages: 1 Including Cover PageOriginal to Follow by Mail: Yes      No X

If you do not receive all the pages, please call (714) 237-1201

**ASSOCIATED LABORATORIES  
QA REPORT FORM - METHOD 6010**

QC Sample: 151609-625835

H# 062805 SO8

Matrix: SOLID

Prep Date: June 28, 2005

Analysis Date: June 29, 2005

Lab ID#'s in Batch: LR 151609, 152390

Reporting Units = mg/Kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	% RPD
Sr	68	920	1,060	1,000	108	101	6

\* = Outside QC limits, due to matrix Interference  
If Sample Result > 4 times Spike Added, then "NC"

% REC LIMITS = 75 -125 RPD LIMITS = 20
---

**LCS RECOVERY / METHOD BLANK**

Test	LCS True Value	LCS Result	LCS %Rec	QC Limit %REC	MB Limit	MB Result
Sr	1,000	1,060	106	80-120	0.01	ND



# ASSOCIATED LABORATORIES

DATE OF REQUEST: 6/27/05					CLIENT NAME: All West.				
LAB #(s): 151609 & 152390					ORDER #(s):				
EDIT: _____ ADDITIONAL ANALYSIS: <input checked="" type="checkbox"/>					REGULAR TAT: _____ RUSH: <input checked="" type="checkbox"/>				
MICRO	CHEM	GASC	ICP/AA	PEST/ SVOA	VOA	BIO	TOC/ RAD	PREP	OUT
<div>PRIORITY</div> <div>LR# 151609 - OR# 835 OR# 825, OR 836</div> <div>RESULTS DUE 6/28</div>									
LR# 152390 OR# 028 OR# 036									
please run for Strontium									
ST by @6010									

REQUESTOR: KW

**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Allwest Remediation Inc.

(8349)

LAB REQUEST 153926

ATTN: Richard Scott

1201 N. Bairston Way

REPORTED 07/22/2005

Anaheim, CA 92806

RECEIVED 07/20/2005

PROJECT Sterling Site

SUBMITTER Client

## COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

637534

637535

637536

Client Sample Identification

SEEP-1

SW-1.4

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph D  
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental

Order #: 637534

Client Sample ID: SEEP-1

Matrix: WATER

Date Sampled: 07/19/2005

Time Sampled: 13:20

## Analyte

Result

DLR

Units

Date/Analyst

3.1 Perchlorate by Ion Chromatography

Perchlorate

ND

4

ug/L

07/21/05 RC

Order #: 637535

Client Sample ID: SW-1-4

Matrix: WATER

Date Sampled: 07/19/2005

Time Sampled: 14:00

## Analyte

Result

DLR

Units

Date/Analyst

3.1 Perchlorate by Ion Chromatography

Perchlorate

ND

4

ug/L

07/21/05 RC

Order #: 637536

Client Sample ID: Laboratory Method Blank

Matrix: WATER

## Analyte

Result

DLR

Units

Date/Analyst

3.14 Perchlorate by Ion Chromatography

Perchlorate

ND

4

ug/L

07/21/05 RC

R = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



# ASSOCIATED LABORATORIES LAB REQUEST SUMMARY

7/2

Client ID: **8349**

Allwest Remediation Inc.  
Attn: Richard Scott  
1201 N. Barsten Way  
Anaheim, CA 92806

Lab Request: **153926**

Date Received: **07/20/2005**

Project Mgr: **ESB**

Phone: 714-237-1201 Fax: 714-237-1202

Submitter: Client

Project: Sterling Site

REVIEW	BY	DATE
LOG IN	<i>ESB</i>	<i>7/20</i>
DATA	<i>ESB</i>	<i>7-21</i>
QC		
FINAL RPT		

**PRIORITY**

Order No. **637534** Matrix: **WATER**

Log Date: **07/20/2005@13:24**

Due Date: **07/22/2005**

**IPRIORITY**

Client Smpl. ID: **SEEP-1**

Sampled: **07/19/2005@13:20**

Status: **Logged**

Method	Profile	Test Name	Analyte	Service Group
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

Order No. **637535** Matrix: **WATER**

Log Date: **07/20/2005@13:24**

Due Date: **07/22/2005**

**IPRIORITY**

Client Smpl. ID: **SW-1-4**

Sampled: **07/19/2005@14:00**

Status: **Logged**

Method	Profile	Test Name	Analyte	Service Group
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

Order No. **637536** Matrix: **WATER**

Log Date: **07/20/2005@13:24**

Due Date: **07/22/2005**

**IPRIORITY**

Client Smpl. ID: **Laboratory Method Blank**

Sampled:

Status: **Logged**

Method	Profile	Test Name	Analyte	Service Group
314		314 Perchlorate by Ion Chromatography	Perchlorate	CHEM

Logged By: **KRISTENEL**

Lab Request **153926** ticket

## ASSOCIATED LABS RESULTS WORKSHEET FOR LAB REQUEST 153,926

Order #: 637534 Client Smpl ID: SEEP-1

Matrix: WATER

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	7/21	RC	1	ND	4	ug/L

Comments:

Order #: 637535 Client Smpl ID: SW-1-4

Matrix: WATER

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate	7/21		1	ND	4	ug/L

Comments:

Order #: 637536 Client Smpl ID: Laboratory Method Blank

Matrix: WATER

Test #	Analyte	An. Date	Init.	DF	Result	DLR	Units
14	Perchlorate				ND	4	ug/L

Comments:

DLR = Detection limit for reporting purposes. DF = Dilution factor. An. Date = Date of analysis. Init = Analyst initials



806 N. Batavia • Orange, CA 92868  
(714) 771-6900 • Fax: (714) 538-1209

# CHAIN OF CUSTODY RECORD

Date 7/20/05 Page 1 of 1

153926

CLIENT Allwest Rem.

ADDRESS 1701 N. Blysten

ANATHERON, CA

PROJECT NAME

STERLING SITE

**PROJECT MANAGER**

R.S. 2017

PHONE NUMBER

714-237-160

SAMPLERS (Signature)

Lab Use Only:

Samples intact Yes ☒ No ☐

County Seals Intact Yes            No           

Sample Ambient ☐ Cooled ☒ Froze ☐

Same Day \_\_\_\_\_ 24 Hr.

Regular \_\_\_\_\_ 48 Hr. ☒

[illegible]

Relinquished by: (Signature)

Received by: (Signature)

Date/Time 12:50  
7-20-2008

Thereby authorize the performance of the above indicated work.

Relinquished by: (Signature)

Received by Laboratory for analysis:  
(Signature)

Date/Time 13:05  
7/20/05

Special Instructions:

DISTRIBUTION: White with report. Yellow to AL.